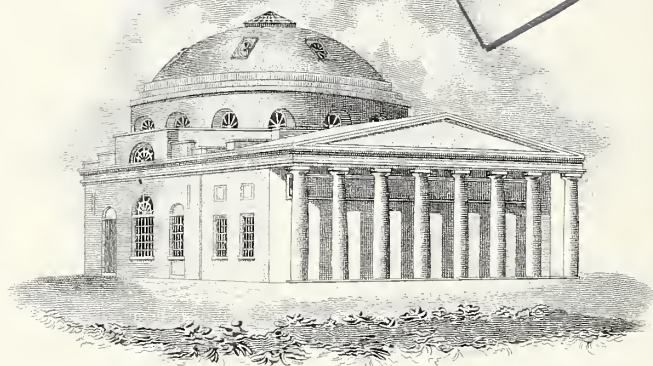


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Colorado Medicine

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The Colorado Hospital Association

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January to December, 1934

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EDITORIAL NOTES AND COMMENT

Telescopic Spectacles

THE early Greeks used convex lenses as magnifiers, and more than 600 years ago spectacles came into common use, to avoid the failure of vision caused by effects of age. The telescope of Galileo was made more than three hundred years ago and is still used in the common form of opera glasses.

About twenty years ago the German firm of Zeiss fitted small telescopes, to be worn before the eyes, in spectacle frames. More than fifty years ago it was claimed that cataract glasses gave a better field of vision if ground as crossed cylinders. This had some theoretic advantage, but proved of no practical service. It made the glasses very difficult to grind accurately and was not used.

Now comes a "Doctor" who announces to the "American Academy of Optometry," that he has improved the telescopic spectacles by using cylindrical lenses. By his telescopic spectacles he was "convinced that most of the cases of subnormal vision have a greater capacity to see than we doctors used to give them credit for having." This announcement has been widely spread by the daily papers, and many doctors are being asked about telescopic spectacles.

In the Sunday papers of May 21 appeared a feature article with illustrations from photographs of the "doctor," his nurses and "patients" they are treating. It told of his private offices, his two "doctor assistants," the hundred and twenty-five patients he has

had, and that "private patients come from everywhere—today there was one each from the Canal Zone, Cincinnati, Chicago and Nova Scotia." This publicity is sure to bring more questions about telescopic spectacles.

The "doctor," who got this advertising, admits that a patient must have some vision, to get help from "my telescopic spectacles." But it was claimed that 40 per cent of the blind and near blind would get help from them. Eye physicians, after twenty years' experience with the Zeiss telescopic spectacles, know that very few of the near blind get practical help from them; and the addition of the cylinder does not extend their usefulness.

Their chief help is for reading; and for that the older forms of magnifiers are more simple and useful. Cataract, glaucoma, atrophy of the optic nerve, corneal opacities from trachoma are common causes of blindness, for which spectacles, even telescopic, can do nothing. The harm to be done by misleading promises of help has caused the American Foundation for the Blind and the National Society for the Prevention of Blindness to issue a warning to the blind not to indulge in false hopes that may be raised about telescopic spectacles. E. J.

• • •

Midwinter Postgraduate Clinics

THE plan for postgraduate study instituted by the Colorado State Medical Society a year ago was successful from its inception and warrants its continuation. In addition

to the practical clinics this year, there will be bedside clinics and ward walks—groups limited to ten. Facilities are to be utilized as follows: Fractures, obstetrics, gynecology, and genito-urinary at Denver General; pediatrics and orthopedics at Children's; general medicine, surgery, eye, ear, nose and throat at Colorado General Hospital.

Guests will encounter minimum expenses. Registration fee is \$1.00. Complimentary luncheons are to be served daily at the hospitals. Stock Show Week will account for reduced railroad rates from all points in the State.

These postgraduate clinics will supplant the Spring Clinics formerly sponsored by the medical school. They represent practically a nation-wide movement of State Societies in behalf of better medical practice. Plan now to attend. Bring your friends who are Doctors of Medicine, whether Society members or not.

Remember the dates—January 17, 18, 19 (Wednesday, Thursday, Friday), 1934!



Loyalty

FROM outside of Colorado comes an outstanding example of good ethics, fraternalism, and the golden rule. One of our local colleagues diagnosed an extensive cancer of the cervix, inoperable, and recommended radiation therapy. The patient's relatives, and relatives do, sought extraneous forces—greater prowess, specialism, promises. They heard of a physician in the Middle West who enjoyed repute in the treatment of cancer. They cited cases he had treated, wrote to him and requested his acceptance of the patient. In response, the most aggressive relative received the following letter:

My Dear Mrs. _____:

I have your letter of December 6, 1933. From the enclosed letters, I gain the impression that your sister-in-law has a cancer of the uterus, although the letters do not say so exactly. If that is the diagnosis, I feel that radium is the proper treatment. In fact I use radium by choice in these cases myself.

Now I do not want to assume the position of saying that any treatment is right or wrong,

knowing as little as I do about this patient. But from the tone of these letters, I would say that everything is being done that can be, and to have her come here would be to start the expense all over.

The treatment of Mr. _____ was different because of the difference in the organs involved and because of the difference in the cancers. I appreciate being consulted in this matter and wish that I might suggest something of value to your relative. However, I believe that she had best continue with those in charge of her case for they undoubtedly know all about it and are in all probability perfectly competent.

I am an ordinary doctor and hasten to make clear that I am not a cancer specialist nor anything of that quack variety. I happen to have had unusually good luck with the cases that you mention, but there are others in which my success was not so good. Cancers are cancers, the dread of the human race, very difficult to manage, let alone cure, and so I urge you to accept the situation philosophically and allow the doctors to do the best that their judgment indicates.

There is, of course, no charge attached to this letter. I am returning the letters that you enclosed.

Yours very truly,

_____, M.D.

This is, to our thought, a classic. It reveals the proper attitude of one physician to another. What a satisfaction to know there are men like that among us!



A Popular Indiscretion

EVEN though strong coffee is known to be one of the most powerful stimulants, particularly in the many individuals who are susceptible to caffeine, we tolerate the blatant advertising statements that half a dozen cups daily are actually beneficial. So-called health officials are hired to testify that it is in no way injurious. On the contrary, one author has recently referred to it as the great American drug habit.

Needless to say, when consulted by a patient with palpitation, insomnia, indigestion, and what not, we often neglect to question that individual on his temperance. The question is not answered without comment upon the intake of food and beverage, particularly those which are stimulating. Food, tobacco, and coffee may approach, physio-

logically, the importance of alcohol when indulged without discretion.

In the cases wherein these facts obtain, abstinence from coffee is worthy of trial—at least as a therapeutic test. Whether the patient cooperates indefinitely is another problem, but the physician may enjoy the satisfaction of a discriminating diagnosis.



Metaphen in Peptic Ulcer

THE Journal of Chemotherapy has reviewed the work of C. M. Trippe who, over a period of four years, has treated patients complaining of chronic abdominal distress with metaphen. Eighty-two cases comprise 26 gastric and 56 duodenal ulcers, the diagnosis being confirmed by x-ray, test meal and microscopic gastric content study.

The technic of treatment consisted of oral administration of 4 c.c. of 1:500 solution of metaphen t. i. d. Symptoms were relieved, usually in about three days, after which the dose was continued three times daily for a week, then twice daily the second week, once daily the third week, and one dose every second day the fourth week. The drug was stopped thereafter. The metaphen was taken with equal parts of glycerin or cinnamon water in half a glass of water—*a.c.* or *p.c.* in gastric ulcer, and one hour before or two hours after meals in duodenal ulcer. Incidentally, cases of colitis are reported relieved by giving this dosage after meals and at bed time.

Healing of ulcers has been demonstrated by the x-ray in a number of cases. Metaphen, being a bactericidal agent, seems to demonstrate the important element which infection plays in the evolution of ulcers. Rosenow has demonstrated the presence of streptococci in several peptic ulcers. Such therapy, together with that of gastric mucin, gives genuine encouragement in these conditions which have previously been so extensively treated only symptomatically.



Your wife will enjoy this Journal.

State Meeting Exhibits

OUR Committee on Scientific Work is making a substantial effort to assure an annual meeting of outstanding success in 1934. The Committee aims to discover what the majority of members want and to see that they get it. The importance of one feature—scientific exhibits and demonstrations—cannot be overemphasized.

Professional men harbor an insatiable hunger for good practical exhibits. Aggressive committees on scientific work are taking increased advantage of this fact. Human nature will be not changed; men seek refuge from hard chairs and from many dissertations, especially long ones. Men also seek knowledge, particularly that which is made more readily assimilable through the visual sense and which they take *ad libitum*. Doctors will travel farther, stay longer, and return sooner to the state association meetings with good exhibits.

Medical men have hobbies. Many have developed no small degree of skill in the arts. The greatest success in our profession entails versatility; talent usually accompanies the latter. Exhibitions of sketches, oils, collections, and handicraft have never failed to incite interest. They may influence other men to cultivate their latent capabilities and ambitions—which might make better doctors. Many a student has been thereby saved from the mire of professionalism.

The expense incidental to extensive exhibits need not be great. It is rarely necessary to pay transportation. The majority of exhibitors, be they physicians or merchants, gladly accept this usually minor burden.

It is not too soon to plan extensive exhibits for our next annual meeting. They will be successful in proportion to the time and care expended. What have you that the rest of the profession will enjoy or by which it will profit? Respond to your Committee's efforts to enhance this important phase of a successful session. Volunteer your suggestions and, when possible, your material assistance.

THE MENACE TO LIFE AND HEALTH FROM IMPROPER SEWAGE DISPOSAL IN COLORADO*

EDWARD N. CHAPMAN, M.D.
COLORADO SPRINGS

One of the marks of civilization is the proper disposal of human excreta. The reason for this we shall see later. Certain unenlightened countries like China still use human fertilizer on their gardens. Their incidence of intestinal disease, including amebic dysentery, is notoriously high, and American tourists are always warned of this hazard and counselled to avoid fresh vegetables while traveling within their boundaries. Some European countries use human manure after it has been carefully cured, thus killing disease producing organisms. This fertilizer is applied to gardens but once a year.

What do we do with our sewage in Colorado? Most of our cities and towns pour it untreated into our streams and rivers—streams and rivers which, due to their small size and our dry climate, in most instances are totally inadequate to dilute or purify properly the stuff we dump into them. Most of our streams below our principal towns are, therefore, simply open sewers and bacteriologically remain so for the balance of their course through our state. These are the streams with which we irrigate truck gardens.

What are the contents of sewage? Many people think of it only in terms of storm sewers and dishwater. In reality sewage contains:

- Urine
- Sputum
- Feces
- Disintegrated toilet paper
- Disintegrated sanitary pads
- Contraceptive devices.

All these substances can carry the germs

of disease. In time these germs, and, in many instances, the substances themselves, enter our streams, pass into irrigation ditches, and soon are deposited on the soil of our truck gardens, on the hands of workers in these gardens, and on the vegetables which later come into our markets and are eaten by our people.

I have investigated personally some of these irrigation ditches and truck gardens; the sight is an extremely revolting one. That there can be the grossest pollution of our vegetables under this system is evidenced by the fact that lettuce has been served even in an excellent restaurant and fecal material has been found adhering to the leaves and I am told that there was absolutely no doubt that the substances was feces.

What disease may be transmitted by this sewage-contaminated water with which we irrigate our vegetables? There is unquestionable evidence that the so-called "filth diseases"—typhoid fever, amebic dysentery, and infectious diarrhea—are transmitted almost exclusively through human excreta. They are, in fact, called "filth diseases" because they are passed on through filth. My professor of Hygiene used to say that they generally represented a short circuit between the intestinal tract of one individual and the mouth of another. Animal fertilizers do not carry the organisms causing these diseases.

We have thus in this state an ideal method for the transmission of intestinal disease producing organisms, since as long as there is a case of typhoid fever, amebic dysentery, or infectious diarrhea, within any community not equipped with a proper sewage treatment plant, the bacteria causing these diseases may pass through its sewage system and into truck gardens to be returned on the vegetables we eat. Even the handling of these vegetables by the housewife preparatory to cooking may contaminate the other foods. Cannot these vegetables be washed and thus made fit for human consumption? The answer is that even after thorough wash-

*From the Special Committee on Public Health of the Colorado State Medical Society. Presented at the combined meeting of Colorado Health Officers and the Colorado Municipal League at Pueblo, Colorado, December 14, 1933.

The author is indebted to Drs. Boissevain and Ryder for checking his statements with regard to bacteriological data, and Messrs. Alfred Cowles III and Wm. F. C. Nelson of the Cowles Commission for Research in Economics, Colorado Springs, for constructive suggestions with regard to the presentation of statistical data, etc.

ing, the colon bacillus count has been found by competent bacteriologists to be far too high in many instances to make them safe to eat.

Is it possible that we have become unduly excited over the esthetic side of this problem or that even though the chance for infection exists we may be fortunate enough to escape this infection? Is there any evidence to show that, after all, we in Colorado have more than our share of these filth diseases?

Every summer and fall, about the time the bulk of these contaminated vegetables come upon our markets, throughout all the irrigated sections for which I have data, there is an epidemic of diarrhea. Now a severe diarrhea may be fatal to a baby or small child and dangerous to an individual suffering from tuberculosis or other debilitating condition. It is argued that this diarrhea results from the fact that people eat more vegetables at this time because they are inexpensive. If this is the case, why do they not have these epidemics in non-irrigated portions of the country at the time vegetables are inexpensive? It is my impression that in climates similar to ours no such epidemics take place, particularly among adults.

Table I shows our death rate per 100,000 of population and compares it with the United States registration area, with some of our neighboring states, and with California. These are the latest years as yet available in the United States Public Health Service records.

A comparison with our neighbors is particularly interesting because Nebraska and Wyoming have no irrigated areas where sewage-contaminated water is used.^{1, 2} Utah and Kansas each have only one county using contaminated water for irrigation.^{3, 4} I have been unable to obtain comparable data for New Mexico. Such figures as I have seen would indicate that she is faced with the same problem that exists in Colorado.

I include California for three reasons. First, Colorado and California both advertise health. Second, we are regarded as intelligent states. In a recent survey⁵, based on seven different tests by Dr. Frederick

¹Communication from the State Board of Health of Nebraska.

²Communication from the State Board of Health of Wyoming.

³Communication from the State Board of Health of Utah.

⁴Communication from the State Board of Health of Kansas.

⁵New York Times, page 1, May 13, 1933.

TYPHOID FEVER

Annual Death Rate per 100,000

	1923	1924	1925	1926	1927	1928	1929	1930	1931	AV. RATE 1923-31	AV. RATE 1929-31
COLORADO	10.7	6.5	9.2	6.1	7.5	4.0	6.4	5.4	6.7	6.9	6.2
UNITED STATES	6.8	6.7	8.0	6.5	5.5	4.9	4.2	4.8	4.5	5.7	4.5
CALIFORNIA	3.6	5.2	2.5	2.4	2.1	2.0	1.7	1.7	1.6	2.5	1.7
KANSAS	6.2	4.4	5.6	4.7	3.6	2.4	2.9	3.0	2.2	3.9	2.7
NEBRASKA	3.1	2.2	2.7	1.8	2.7	1.8	1.8	1.6	1.7	2.1	1.7
UTAH	8.6	7.8	5.2	4.9	3.4	4.2	3.4	2.4	2.9	4.7	2.9
WYOMING	7.1	4.6	9.2	3.4	2.9	3.6	4.5	2.7	2.2	4.5	3.1
ALL REGIST. CITIES	4.8	4.7	5.3	4.2	3.3	3.	2.6				

TABLE I

Osborn of the American Museum of Natural History, both states are rated among the first ten states in this country with regard to the general level of intelligence of population. California, however, does have this one disadvantage. According to the 1930 census report, she had 10 per cent of her inhabitants listed as "other races," while we had only 6 per cent so listed. Her population is composed 6.5 per cent of Mexicans, while ours is only 5.6 per cent Mexican. My third and chief reason for including California is because she also has extensive areas under irrigation but prohibits the use of contaminated water in the raising of all market produce and this ruling is enforced^a. We do not.

For the period presented in the table our average death rate from typhoid fever was 21 per cent higher than the average for the United States and 175 per cent higher than the average for California. Our death rate for the last three years was 37 per cent higher than the average for the United States and 270 per cent higher than the average for California. Thus, not only do we have a considerably higher death rate from

typhoid fever than the country as a whole, our neighbors, and California, but in addition our relative position is becoming worse with respect to the country and California. This is later shown graphically in Chart I.

Amebic dysentery, usually a tropical disease, has not been a problem with us until recently. There are cases now in Colorado, and the organisms which cause the disease are undoubtedly passing through our sewage systems and into our irrigation ditches and fields. It is quite possible that in the encysted state the ameba can survive the winter and return to us on our vegetables next summer.

Let us next turn to what is perhaps the most important member of the filth disease group—important because it claims more lives than all others combined and because it is a very sensitive indicator of contamination. This is our death rate from diarrhea and enteritis under the age of 2. An infant or small child is particularly susceptible to contaminated food. Therefore a study of this death rate should tell us much, for if disease producing organisms are present they can be transferred to the baby's food or toys by direct or indirect contact.

Table II shows our death rate per 100,000

DIARRHEA + ENTERITIS UNDER 2

Annual Death Rate per 100,000

	1923	1924	1925	1926	1927	1928	1929	1930	1931	AV. RATE 1923 - 31 INCLUSIVE	AV. RATE 1929 - 31 INCLUSIVE
Colorado	41.1	38.4	47.1	30.2	33.7	24.2	34.3	41.	28.	35.3	34.43
U.S. Regist Area	32.4	27.8	31.5	27.	21.6	20.7	17.9	19.6	15.7	23.8	17.73
California	33.6	28.8	24.8	20.3	19.3	15.6	15.3	14.8	11.5	20.4	13.83
Kansas	22.8	18.1	36.7	29.2	20.8	16.9	10.4	12.1	8.1	19.4	10.20
Nebraska	16.1	13.9	17.3	13.6	9.4	9.9	6.6	8.3	7.1	11.4	7.33
Utah	22.9	19.8	13.7	13.3	8.6	8.6	9.5	10.	7.2	12.6	8.9
Wyoming	22.2	16.1	19.7	14.	14.5	13.6	11.6	19.9	13.6	16.1	15.

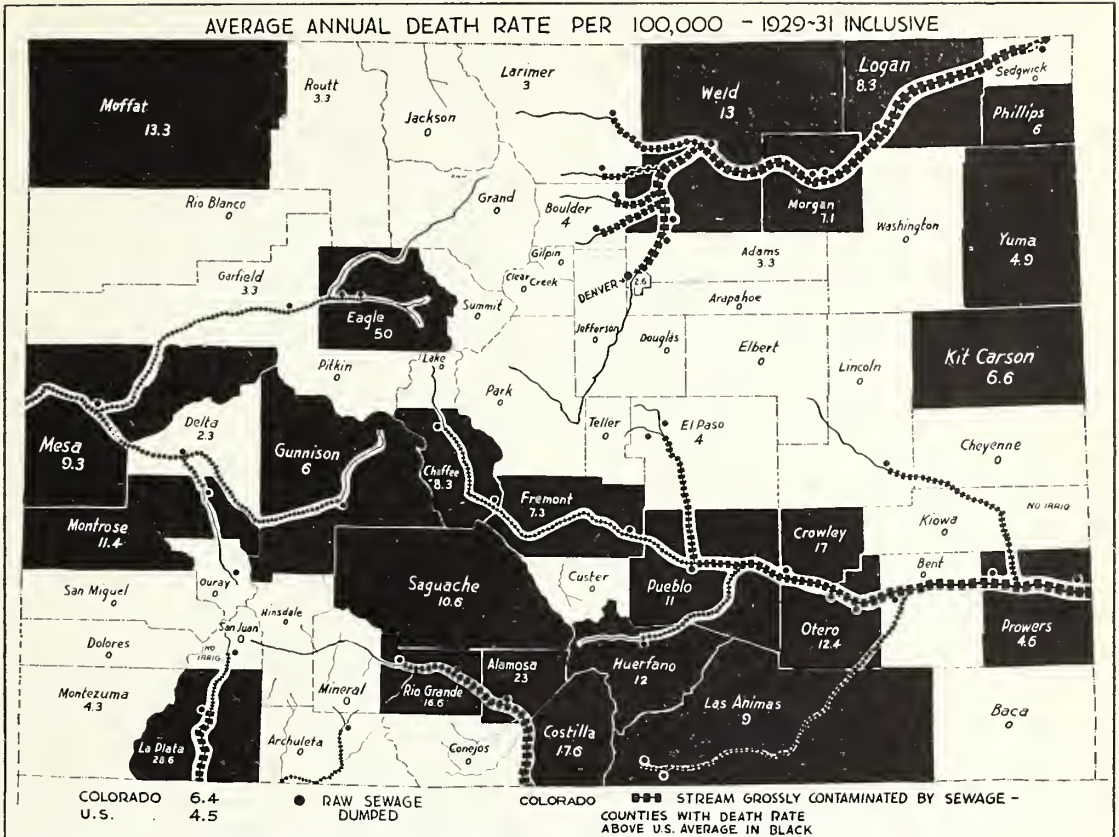
Table II

^aCommunication from the State Board of Health of California.

MAP 1.

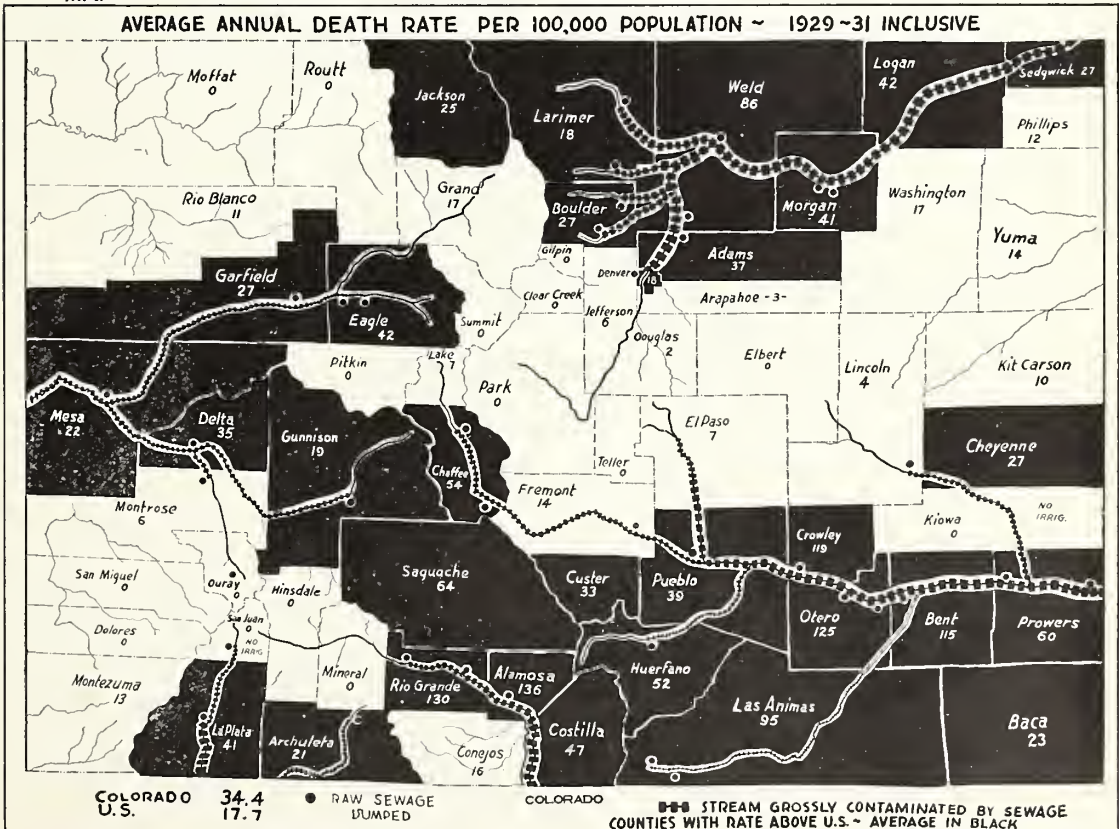
TYPHOID FEVER

AVERAGE ANNUAL DEATH RATE PER 100,000 - 1929-31 INCLUSIVE



MAP 2. DIARRHEA + ENTERITIS UNDER AGE 2

AVERAGE ANNUAL DEATH RATE PER 100,000 POPULATION ~ 1929-31 INCLUSIVE



for this condition and compares it with the same group of states. Again we are far worse than our neighbors—far worse than California, far worse than the United States as a whole. Our death rate for this period was 47 per cent greater than for the United States and 73 per cent greater than for California. Again our relative position for the past three years has declined, since for this period our death rate has been 98 per cent higher than for the United States and 148 per cent higher than for California. Chart II illustrates this graphically.

Granted that our death rate from this group of diseases is abnormally high, has sewage contamination anything to do with this? It is not possible that a contaminated domestic water and milk supply lies at the root of our troubles?

A recent survey of the domestic water supply of our communities by the United States Public Health Service⁷ gives us a reasonably good bill of health. This supply was found to be fairly well protected against contamination except in the smaller communities using wells, springs, and small streams. I quote from the report, "A number of these smaller supplies are potentially unsafe on account of the increasing menace from stream pollution."

Our milk supply is not above suspicion. The report states that there is about a 64 per cent compliance by milk producers with regulations recognized throughout the country as necessary for the marketing of wholesome milk. However this, with a few notable exceptions, seems to be a situation existing pretty much throughout the state and not confined to any particular area or location. If our deaths from these diseases are caused chiefly by contaminated milk, or at least milk unrelated to some local factor like sewage contamination, one would expect a fairly even distribution throughout the state. I have assembled the data used in Maps I and II from the annual reports

of the Colorado State Board of Health. These reports list only the number of deaths by counties for each year. Using these figures I have calculated the death rate for every county for each of the years 1929-31 inclusive. The average for this three-year period is the figure which appears on the maps for each of our sixty-three counties. One should remember that on the average throughout the country urban rates are far lower than rural rates. This is because the milk, water, and food supplies of cities are better safeguarded than those of country districts.

Without knowledge of these results, Mr. Howe, State Sanitary Engineer, supplied me with data concerning streams which he regarded as grossly contaminated by sewage and a menace to health. These streams are also indicated on the map. The average yearly death rate from typhoid fever for this period in the United States was 4.5 per hundred thousand. Note that with only five exceptions all our high death rates occurred in counties with sewage-contaminated streams, most of which are used for irrigation, according to information furnished by the State Engineer's Office.

The same distribution of high death rates from diarrhea and enteritis under the age of 2 prevailed. The rate for the United States was 17.7. With only four exceptions our high death rates again occurred in connection with sewage contamination. Note that above sewage contamination on the South Platte, Arkansas, Rio Grande, and Colorado Rivers, the death rates were extremely low and, in many instances, zero. Below sewage they were high, in some cases rising to eight or nine times the average for the country. These differences are shown in Table III and graphically illustrated in Charts I and II.

Many of the counties along our polluted streams have been having an almost continuous epidemic of the filth diseases through the years and the tragedy lies in the fact that these are preventable diseases.

We face three alternatives in this situation. First, we can proceed as we have in

⁷Supplement 101 of the U. S. Public Health Reports.

AVERAGE ANNUAL DEATH RATE PER 100,000

1929-1931 INCLUSIVE

	TYPHOID FEVER	DIARRHEA & ENTERITIS UNDER 2
U. S.	4.5	17.7
THE 32 COLORADO COUNTIES WITHOUT GROSS CONTAMINATION	1.1	8.2
THE 31 COLORADO COUNTIES WITH GROSS CONTAMINATION	9.8	50.3

TABLE III

the past and remain one of the black spots of the country. I am informed that in that case the United States Public Health Service may step in to bar our vegetables from interstate commerce. Do we want to court such unwelcome notoriety? Second, we can ourselves bar all vegetables raised with contaminated water from our markets. The farmers can then go to the law courts and recover damages from our cities on the ground that it is against the Colorado law to dump sewage into streams used for irrigation. Meanwhile losses to both our farmers and our communities will result. Eventually our towns and cities will be forced to build sewage treatment plants to stop the drain on finances resulting from law suits.

Third, we can put our own house in order by the construction of sewage treatment plants wherever they are needed to insure clean water with which to raise market produce. We, as physicians, can educate the people to the presence of this dangerous and revolting condition. It has persisted because the majority of thinking people have not dreamed of its existence. The people of Colorado are above average in intelligence and matters of cleanliness. They do not want to eat their own and others' filth returned to them on their vegetables and thus run far greater than average risk of contracting the diseases transmitted by human excreta.

Conclusions

It has been shown:

1. That gross pollution by sewage of some of our streams used for the irrigation of vegetables exists in Colorado.
2. That this contamination of irrigation water offers an ideal method for the spread of the filth diseases—typhoid fever, amebic dysentery, and infectious diarrhea—since these conditions are transmitted by human excreta.
3. That there is an epidemic each year

TYPHOID FEVER

Average Annual Death Rate per 100,000 Population

■ YEARS 1923-31 INCLUSIVE

▨ YEARS 1929-31 " "

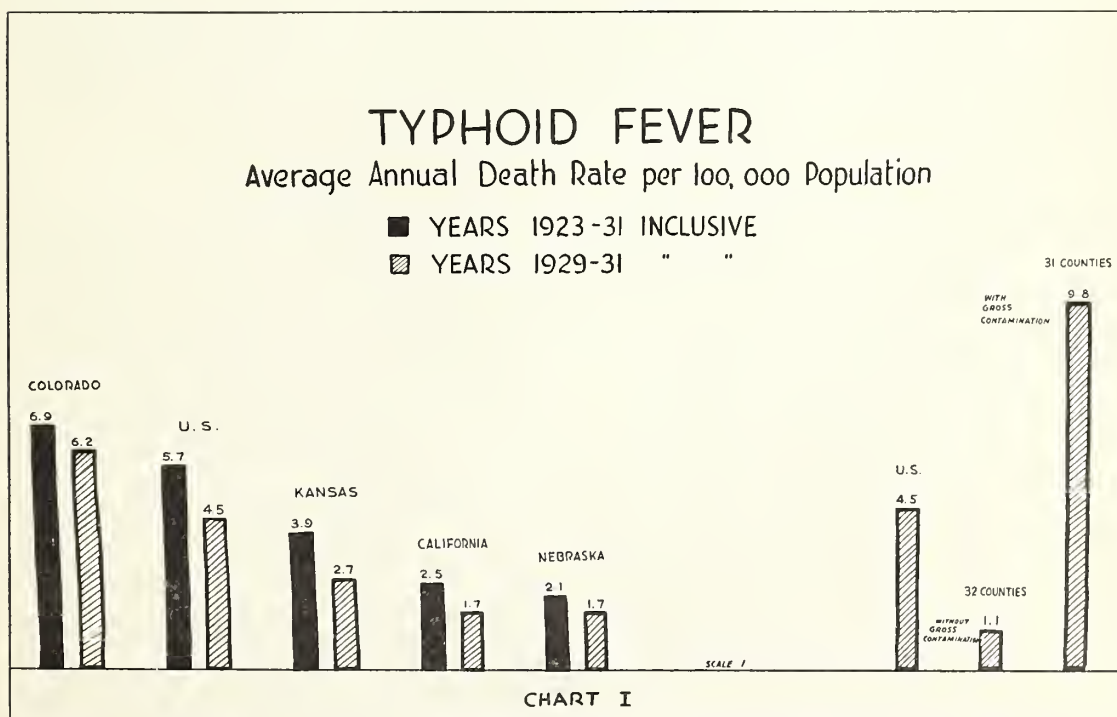
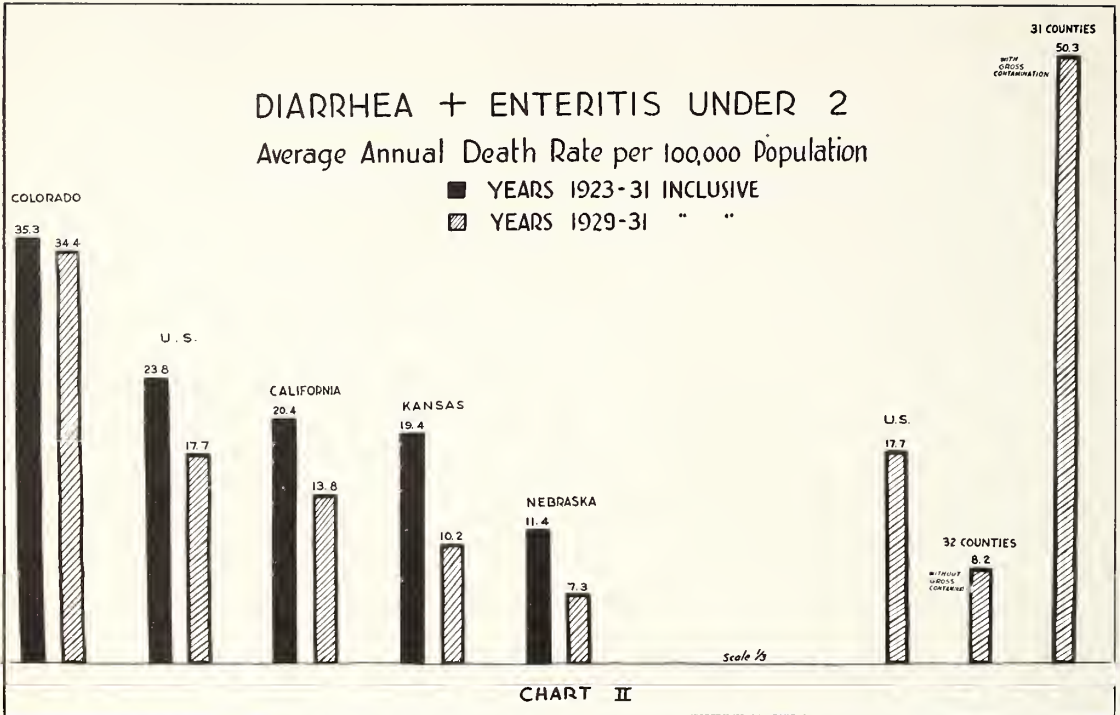


CHART I



of diarrhea about the time the bulk of vegetables raised with contaminated water comes upon our markets.

4. That the death rates from typhoid fever and diarrhea and enteritis under the age of 2 in Colorado are far above the average for the United States, for neighboring states furnishing comparable data, and for California—a state similar to Colorado in many respects, but a state which does not permit the raising of vegetables with contaminated water.

5. That the average 1929-31 annual death rate in the thirty-one counties of Colorado in which there are sewage contaminated streams was twice the average rate for typhoid fever and almost three times the rate for diarrhea and enteritis under the age of 2 that obtained in the United States registration area. On the other hand, in the thirty-two counties free from grossly contaminated irrigation water the rates were only one-fourth, in the case of typhoid, and one-half, in the case of diarrhea and enteritis under the age of 2, the rates for the United States.

6. That no factor other than sewage contamination seems to explain satisfactorily this situation.

7. That the standard of civilization and intelligence of the people of Colorado, once they are informed, is too high to make them willing to eat food continually contaminated by human filth or to run greater than average risk of contracting the filth diseases.

8. That the remedy for this dangerous and revolting condition lies in the construction of sewage treatment plants wherever needed to safeguard irrigation water from contamination.

News Item

Application blanks are now available for space in the Scientific Exhibit at the Cleveland Session of the American Medical Association, June 11 to 15, 1934. The Committee on Scientific Exhibit requires that all applicants fill out the regular application form and requests that this be done as early as convenient. The final date for filing applications is February 26, 1934. Any person desiring an application blank, should address a request to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

AVOIDANCE OF PULMONARY COMPLICATIONS FROM INTRAVENOUS ARSENICALS*

GEORGE C. SHIVERS, M.D.
COLORADO SPRINGS

Fatalities from the intravenous injection of arsenical drugs have been observed ever since the introduction of arsphenamine by Ehrlich. Most of these have been attributed to the so-called "nitritoid crisis," with which all men using arsenical drugs are familiar. There is, however, another very important cause of death from these drugs which is not so well known, and which, from a review of the literature, is responsible for a very large per cent of fatalities—namely, pulmonary embolism. It is this subject which concerns us here.

Incidence

As a result of reactions occurring in the treatment of syphilitic patients, many articles on the subject have been published and many statistics compiled relative to the number of injections and the number of fatalities. Various investigators have placed the ratio of deaths from arsphenamine and neoarsphenamine at figures varying from 1 in 7,000 to 1 in 11,289 injections. From 1925 to 1928, the United States Navy Medical Department administered 273,354 intravenous injections of arsenicals. During this period there were sixteen deaths from neoarsphenamine and one death from arsphenamine, or a ratio of one death to every 16,079 injections. Similar reports from the German and British governments set the ratio at one in 10,984 and one in 13,000 injections respectively.

If the ratio of the United States Navy is accepted as a standard, there must be about 800 deaths a year in this country from this form of treatment. This is a large number if viewed from the number reported, but it is probably correct since many cases are not reported. Raizias is also of the opinion that there are many more fatalities than are reported, as many of the known fatalities do not appear in the literature.

CASE REPORT

A white male of 29 years entered the hospital on October 9, 1931, complaining of pain in the

right chest, cough, and bloody sputum. On October 4 he had begun to feel tired and exhausted on slight exertion and on October 6 developed a sharp pain in the right chest which was knife-like in character and worse on deep inspiration. The condition had grown worse and he had been sent to the hospital by a private physician.

Examination showed the patient to be dyspneic and cyanotic. There was dullness over the base of the left lung and in the right axillary space. A friction rub could be heard over the bases of both lungs. Bronchial breathing and fine rales were heard over both axillary and basal regions. There was a leukocytosis of 19,000 and there was albumen and pus in the urine. A diagnosis of bilateral pneumonia was made. X-ray examination showed a diffuse mottling of both lungs.

The patient was treated symptomatically, but gradually failed and died in coma on October 14. At autopsy, a gross diagnosis of bilateral bronchopneumonia was made and the death certificate so signed, but microscopic sections of lung showed this to be incorrect. Microscopically the consolidated areas consisted of necrotic lung tissue surrounded by zones of leukocytes and erythrocytes. In the center of the necrotic areas were arterioles filled with a network of a green-yellow-brown, hyalin-like material arranged in whorls and embedded in thrombi composed of fibrin, leukocytes, and nuclear debris.

A diagnosis of foreign body embolism of the pulmonary arterioles with multiple abscesses of the lungs was made and an investigation was made to see if the patient had received any intravenous medication prior to admission to the hospital. A conference with his physician revealed that the history given by the patient was incorrect and that the sequence of events was as follows:

On October 1, 1931, the patient consulted the physician because of a small sore on the glans. It was diagnosed as herpes and so treated. When it did not improve by October 6, he was given an injection of 0.9 gram of neoarsphenamine dissolved in an ampule of triple distilled water. Immediately after the injection the patient remarked, "Gee, that certainly hit me in the chest. It is hard to breathe." The physician thought it was psychic and sent the patient home. That night he was called to see him and found him with symptoms of pneumonia.

The speed with which the patient developed symptoms following the injection, and the microscopic findings leaves no doubt that this is a case of pulmonary embolism from neoarsphenamine.

Pathology of Embolism From Drugs

The essential pathological lesion in these cases is a foreign body embolism of the pulmonary arterioles. In the case of arsphenamine and neoarsphenamine, the lumina of the arterioles contain thrombotic masses of a yellow-green to brown color. They are arranged in a whorling manner and are hyalin-like in appearance. The emboli due to sulpharsphenamine resemble coiled

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strands of fibrin which closely resemble skeins of yarn.

As a result of the mechanical obstruction of the arterioles, an infarction of the area supplied by the vessel occurs, and as a result of the chemical nature of the embolus a rapid necrosis of the area around the vessel takes place. Multiple abscesses result.

Discussion of Experimental Work

As a result of the findings in the case reported, an extensive experiment was conducted in order to find answers to the following questions: Will some of the commonly used arsenicals produce pulmonary embolism when administered intravenously? What is the most plausible theory as to the cause? Is a change of the pH value of the drug responsible? Is it possible to prevent and cure these cases of embolism? Time will not permit a detailed discussion of the experimental work. Only conclusions will be given.

The experiment showed that arsphenamine, sulpharsphenamine, and neoarsphenamine would precipitate in dog serum in the test tube if the pH value of the drug was below neutral. This demonstrated that changes in the pH value of the drugs were responsible for precipitation and showed the degree of change necessary to bring it about. The possibility of the precipitate being due to hemolysis or agglutination of erythrocytes or to coagulation of the plasma proteins by the acidity of the solutions was disproved.

Knowing that acid solutions of arsphenamine, neoarsphenamine, and sulpharsphenamine would precipitate in serum *in vitro*, the drugs were then injected into the ear veins of rabbits. The rabbits died with dyspnea and cyanosis and, at autopsy, the characteristic emboli were found in the pulmonary arterioles.

The precipitation of acid solutions of arsphenamine have been observed for over twenty years, but the precipitation of neoarsphenamine and sulpharsphenamine has been disputed. Kolmer and Schamberg emphatically deny that it occurs, as they were unable to produce precipitates in their work.

This experiment, however, has conclusively shown that acid solutions of arsphenamine, neoarsphenamine, and sulpharsphenamine

will produce precipitates in serum both *in vitro* and *in vivo*. In addition, ampules of drug found with a pH value below neutral caused precipitates in serum and produced embolism when injected into rabbits. The failure of other workers to produce precipitates with these drugs was probably due to their method of acidification. In this work, the sodium hypophosphate and sodium acid phosphate buffers were used to obtain the desired pH value. Except in the case of arsphenamine no precipitate could be produced if hydrochloric acid was used for acidification.

Workers have recently shown that precipitate consists of both drug and plasma proteins, but so far no one has been able to prove whether it is a mechanical absorption or a chemical combination. These arsenical drugs are colloids and a study of colloidal chemistry indicates that the formation of the precipitate is due to the following mechanism.

If an acid solution of a drug is administered intravenously, the buffers of the blood, in attempting to bring it to a neutral pH, carry it through a point where the conductivity of the solution drops to a point where the particles of the drug are in a physical state suitable for combination with some substance. This results in a combination with the plasma proteins and the formation of a precipitate. This is known as the "isoelectric point theory" and is the most plausible explanation of the cause of the precipitate.

Patients with drug embolism experience sudden severe pain in the chest and become dyspneic and cyanotic. The asphyxia resulting from circulatory obstruction and impaired ventilation causes respiratory paralysis and circulatory failure. If the stage of immediate collapse is survived, the case goes on to that of embolic pneumonia with fever, bloody sputum, leukocytosis, and physical signs of pulmonary consolidation or abscess formation. Available statistics indicate that the mortality is about 80 per cent.

With the introduction of neoarsphenamine, physicians felt that in it they had a drug which was practically harmless and

could be given in large doses and more frequently than arsphenamine. This idea is erroneous. From observations in my work, neoarsphenamine is even more dangerous than arsphenamine because there is a careful alkalization of arsphenamine before injection and, at the time of injection, there is no check on the pH value of neoarsphenamine. Reports from the British Medical Research Council confirm this statement.

Knowing that acid solutions of these arsenical drugs will cause precipitates in the blood which result in embolism, and with the knowledge that at best there is one fatality in every 16,000 injections, the matter assumes a very important aspect.

Drug companies have made every effort to standardize their products so that accidents will not occur. Such efforts have not been successful, for in boxes of apparently satisfactory drug, occasional ampules were found which had a pH value of 6.4 or 5.4 and when injected into rabbits they produced embolism. Had they been injected into human beings, embolism would no doubt have occurred. The fault is not that of the manufacturer, for the drugs are carefully tested before being placed in ampules for the market. However, after the ampules leave the factory, some unknown factor comes into play which results in a fall of the pH value in perhaps just one ampule in a whole lot. The injection of such an ampule may kill. It is impossible for the manufacturer to tell ahead of time that a certain ampule will deteriorate. The answer as to why the whole batch does not deteriorate awaits further study.

With the knowledge that only one ampule in a lot may be spoiled and that it may kill if injected, no physician can inject these drugs without misgivings. Nevertheless we must have drugs for the treatment of syphilis and these drugs are of definite value. No physician wishes to be constantly in dread of an accident every time he administers these drugs. How then may we prevent these accidents and deaths?

Means of Prevention

First, great care must be exercised in preparing the drug for injection. It should be

dissolved in distilled water without heating or shaking as these factors increase the toxicity of the drug.

Second, no acid or alkali should be added to these drugs except in the case of arsphenamine where the directions call for addition of a specific amount of alkali before injection.

Third, inject slowly to keep the concentration in the vein down to a minimum. High concentrates favor precipitation. Many of the cases who have recovered may owe their recovery to the slowness with which the drug was administered.

Fourth, do not administer too large a dose. It is notable that 80 per cent of the cases reported in the literature received a dose larger than 0.6 gm. This fact substantiates a report of the Cologne Commission that when the dose of neoarsphenamine is increased from 0.6 to 0.9 gms., the ratio of deaths rises from 1 in 11,289 to 1 in 3,000 injections.

The fifth means of prevention was devised as a result of this work and will unquestionably prevent any reactions due to the precipitation of the drugs in the blood. This will eliminate all cases of drug embolism and may prevent many of the "nitritoid crises" if they be due to small emboli in the brain and spinal cord as some men believe.

Special Method of Prevention

With the idea of devising some means of preventing accidents due to changes in the pH value of the drugs, various indicators were studied, for it was felt that if an indicator could be combined with the drugs to show the pH value, it would be possible to avoid the injection of acid solutions.

Brom-thymol blue, chemically known as di-bromo-thymol-sulphonphthalein, was selected as it was found, when combined with drugs, to have a very sharp end-point at pH 7.0. Above this point it gives a green solution and below neutrality the solution is yellow. The amount of the dye which must be combined with the drugs to give the proper color is 0.8 milligram.

The dye is not toxic for rabbits in a dose 625 times the dose advocated for human beings, nor is it toxic when combined with the

drugs. Combinations of drug and dye have been given to patients without noticeable symptoms. No pathological lesions of liver or kidneys occurred in rabbits receiving as much as 500 milligrams of the dye. During the period when this combination was used, four ampules of acid neoarsphenamine were detected by means of the dye. When injected into rabbits, pulmonary embolism resulted.

The incorporation of 0.8 mg. of brom-thymol blue in each ampule of arsenical drug will prevent the occurrence of reactions due to the precipitation of the drugs in the blood, not by preventing deterioration of the drugs, but by affording a means whereby the physician, at the time he prepares the drug for injection, will be able to tell if it is too acid for use, the solution being green if of the proper pH and yellow if it is acid.

If the dye is not toxic, and if it will prevent reactions due to changes in the pH of arsenical drugs, there is no reason why it should not be used. The physicians of the country can not help but demand that the drug companies employ this method of prevention both as a protection to the patient and to themselves. Any means which will prevent one death, let alone hundreds, should certainly be used.

The value of incorporating the dye in the ampule at the time of manufacture rather than merely adding it at the time of preparation for injection is that any physician can always tell if the drug he is about to inject is too acid. On the other hand if the dye is to be added at the time of injection there are several objections. The physician giving an occasional injection of neoarsphenamine may not have the dye available. He may be so far from a big drug house that it will take too long to procure the dye, or he may have a solution of the dye which has deteriorated enough to make the test inaccurate.

Treatment of Cases of Drug Embolism

Should a physician encounter an accident from the drugs as available on the market at the present time, the patient should be treated for shock with lowered head, heat and morphine. Epinephrin hydrochloride

in a dose of five minims should be administered intravenously and a dose of one c.c. given intramuscularly. Sodium thiosulphate in fifteen-grain doses intravenously immediately and daily until there are no symptoms seems to be of definite value. If embolic pneumonia occurs, symptomatic treatment, sodium thiosulphate and oxygen seem to be the only methods of value. From statistics it appears that 20 per cent of the accidents may recover under treatment.

Summary

1. There are about 800 deaths a year in the United States from the intravenous administration of arsenicals and a large per cent of these are due to pulmonary embolism.
2. A case of pulmonary embolism from neoarsphenamine is reported.
3. Evidence is presented to show that arsenical drugs, if acid in reaction, will precipitate in the blood stream, producing pulmonary embolism.
4. The combination of a dye with the drugs in an ampule to indicate by color the degree of acidity and so enable physicians at the time they prepare their injections to determine the fitness of the drug for injection is suggested as a means of prevention.
5. Suggestions for treatment of cases of drug embolism are offered.

DISCUSSION

R. E. Holmes, M.D., Canon City: Dr. Shivers would apparently have us believe that arsphenamines cause more pulmonary embolism than is really the case.

In the State Penitentiary we have been using neoarsphenamine for about nine years and other forms before that. Our experience there is about eighty injections a week, over 4,000 a year, and in the nine years over 36,000. We never have had a pneumonia from these injections. We have had some light pulmonary edema cases, simulating fainting and perhaps some malaise and a little shock. A little while in bed is sufficient to restore them.

We overdo our hospitalization there rather than underdo it in order to give the convicts the benefit of the doubt, sometimes leaving them in bed two days rather than getting them up in two hours. We have had no serious pulmonary edema; fainting spells, occasionally; never any pneumonia.

Our average dose there is 0.6 gram, and sometimes we use less. Quite often we use 0.9, and in those cases the ones that are most obstinate are usually the most robust men. Our average there is under forty years—between twenty-eight and forty.

However, we have had no untoward symptoms and no casualties in fifteen years that I have been at the institution.

Dr. Shivers (closing): In regard to the doctor from Canon City, I wish to congratulate him on his excellent results. Relative to the frequency of this, I took the statistics of the United States Navy Medical Department. They have one fatality in 16,000 injections. Shamburg reports one fatality in 7,000 injections. He had 63,000 injections. The ratio in Germany is one in 10,000 injections. The ratio in Great Britain is one in 13,000 injections.

As far as neoarsphenamine not being dangerous, here is a quotation from the Medical Research Council of Great Britain in 1922: "No special arsenobenzol preparation can be regarded as more likely to produce ill effects than others. Errors in technic cannot account for more than a few

serious accidents, as fatalities occur in the most carefully controlled clinics . . . A feeling among clinicians that neoarsphenamine is a very much milder drug than arsphenamine and consequently can be given in larger doses, and more frequently, is not justifiable. . . . In regard to the nitritoid crises, there is much evidence connecting them with the physical properties of the drug, their association with rapidly precipitating solutions of old salvarsan, imperfectly soluble specimens and acid arsphenamine. . . . Such observations and the usually rapid evanescence of the symptoms seem to clearly show that we are dealing with a phenomenon which has no connection with the presence of arsenic in the molecule but is the result of the disturbance in the colloidal condition of the blood."

TUMORS OF THE THYROID GLAND*

PAUL M. IRELAND, M.D.

PUEBLO

Possibly our title should be New Growths of the Thyroid Gland, as I wish to consider only enlargements definitely neoplasms. Neoplasms of the thyroid, as in any other organ, can be divided into two types, namely benign and malignant. Of benign tumors we find two common types, the adenoma and papilloma. In the last few years there has been considerable controversy regarding the use of the term adenoma as descriptive of all nodular thyroid enlargements. It has been settled to the satisfaction of most workers that about 90 per cent of these growths are involution bodies following previous hypertrophy and hyperplasia and not neoplasms deserving the name adenomata. It has been found that only about 9 per cent of all nodular growths are true neoplasms; our discussion considers only this small per cent.

The true adenoma presents an entirely different picture from that seen in the tumors following a previously active hyperthyroidism. Clinically it is often indistinguishable from the areas of hypertrophy and hyperplasia and the areas of hyperinvolution so often seen persisting after repeated attacks of hyperthyroidism. They may be single or multiple and may vary in size from a pin head to the size of the fist. Grossly they are sharply circumscribed, of a grayish color, and are usually surrounded by a definite fibrous capsule. As a rule the tumors

are quite solid in consistence but may show cyst formation and varying degrees of degeneration, hemorrhage, calcification, or fibrosis. Microscopically the tumors are made up of narrow anastomosing strands of cells or acini which bear no resemblance to normal thyroid tissue. Structural characteristics of the lobule are lost and new tissue formation is evident in the epithelium, stroma, and blood vessels. While acini are often present, they usually are quite small and seldom contain colloid and are often merely radially arranged cells without any lumen. Often the cell clusters appear as a syncytium. The stroma is increased and very vascular. In many cases there is no attempt at formation of acini—merely a dense cluster of cells somewhat resembling an endothelioma.

The papilloma is also a localized, encapsulated tumor appearing grossly as a rather opaque gray semisolid area. There are seldom any degenerative changes. Microscopically there are many cyst-like areas in which the high cuboidal or cylindrical epithelium is heaped up in papillomatous processes. The stroma is very vascular and there is usually a large amount of colloid in cystic spaces.

For many years these benign tumors were accepted as arising from embryonal or fetal cell nests located in the stroma between the acini of an otherwise normal thyroid gland. Beck, Wolfner, and Ribbert were the main supporters of this theory. They felt that at about the age of puberty the cell rests

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began to grow, forming the so-called fetal adenomata. Virchow, Langhans and others did not agree with this theory, holding that the adenomata arose from adult mature thyroid tissue. They felt that the cell nests described were merely the peaks or domes of mature acini which had not been entirely cut through and demonstrated this by serial sections. Kline recently supported this latter theory and showed that there is nothing in the histological structure of an adenoma that resembles embryonal tissue. Benign tumors occur at any age, most commonly between the ages of twelve and forty, and are seen more often in women than in men. Bloodgood reports one case of congenital adenoma, but these tumors before puberty are rare.

Symptomatically, benign tumors differ in no way from simple nodular goiter. There may be periods of hyperthyroidism and periods of rest. The former are often described as toxic adenomata, but there has never been any histologic or biologic proof that the adenoma takes part in the process. The gland surrounding the tumor may undergo hypertrophy and hyperplasia but not the cells of the tumor. This has been noted in many cases at the Johns Hopkins Hospital and by Wilson at the Mayo clinic. At these institutions no difference was noted microscopically or chemically between adenomata from glands whose parenchymata had or had not undergone hypertrophy and hyperplasia.

There is still much confusion regarding the classification of malignant thyroid tumors. If we bear in mind the inherent peculiarities, structural and functional, of the thyroid gland we can understand the varying histologic appearance of tumors of this gland and appreciate the difficulty in many cases of diagnosing malignancy. No classification has as yet been made which is entirely satisfactory and comprehensive. In practically every case there are combinations of different kinds of malignancy in different parts of the tumor, and in some there is much doubt as to whether the tumor is a carcinoma or a sarcoma. Also malignant tumors are relatively rare, making up only

0.5 to 2 per cent of all goiter cases; thus material is lacking for a thorough study. Most observers emphasize the great frequency with which malignant tumors are preceded by a long existing enlargement of the gland. Bloodgood in a small series did not find this true, but the statistics of others are not in accord with his findings. Balfour found 100 per cent previous enlargements in sixty-three cases of malignancy. In 290 cases of malignant goiters, Wilson found that in 157 there had been a nodular goiter for over five years and in 229 cases for more than a year. Graham believes that 90 per cent of all malignancies originate in fetal adenomata. Other writers report similar figures. Whether the malignancies arise in adenomata or in simple nodular goiter, the evidence is strong that they do originate to a large extent in thyroid glands which have been previously diseased.

The majority of malignancies are found past middle life, being most common in the fourth, fifth, and sixth decades. Sarcoma may appear early in life, but, peculiarly, it is more often found late, usually in the sixth decade. Carcinoma is found more often in young people than sarcoma, being reported by Ewing as early as three years. Carcinomata are tumors of epithelial origin which show signs of malignancy, morphologically or biologically. In early cases diagnosis is entirely on morphology; in late cases both viewpoints may be considered. The criteria of malignancy will then be: (1) Changes in cell morphology. (2) Changes in cell relations. (3) Local invasion. (4) Local recurrence after attempted removal. (5) General metastases. Carcinoma may be divided into several varieties. Rienhoff distinguishes between true carcinoma originating in the thyroid epithelium, by alteration and proliferation of the epithelial elements of the follicles, and adenocarcinoma or malignant adenoma. Of the former he recognizes four varieties according to tissue predominance: (1) Scirrhus—predominately connective tissue. (2) Medullary—predominately cellular. (3) Simple-cells and connective tissue about evenly divided. (4) Carcinoma-sarcoma or carcinoma-sarcoma-

toides-cells and connective tissue about evenly divided but with very cellular and active connective tissue growth. The adenocarcinoma he divides into (1) papillary cystadenocarcinoma and (2) lobulated adenocarcinoma. Of all types the papillary cystadenocarcinomata are the least malignant.

Sarcomata are uncommon but are of the same type as found in other parts of the body. The spindle cell and the mixed cell are the most common. The round cell is the most malignant and the fibrosarcoma is the most benign.

The symptoms of malignancy of the thyroid gland in many cases differ in no way from those of benign enlargements. For this reason it is difficult to determine when malignant changes occur. As a rule the first suspicious symptom is a sudden increase in the rate of growth and a more rapid enlargement of a previously slow growing goiter. Continuous but slow growth without the usual periods of remission is also a matter to be viewed with some alarm. The average duration for carcinoma is about two years and for sarcoma much less. In many cases there will be nothing in the physical findings to arouse suspicion, although generally speaking the consistence of a malignant gland is more firm and dense. Oftentimes the palpation of hard areas within a softer nodule will lead one to the correct diagnosis. Late in the disease very little difficulty is experienced in making the proper diagnosis due to the increased infiltration, the fixation of the gland and the involvement of adjacent organs such as the trachea, esophagus, blood vessels, and the nerve trunks. Metastases occur in a high percentage of cases, being found most often in the lungs, bones, liver, kidneys, pleura. and brain in the above order of frequency.

The treatment of neoplasms of the thyroid is preferably surgical. As the great majority of malignancies develop in nodular goiters or in adenomata it is obvious that removal of these would prevent the development of a large percentage of the more serious tumors. After malignancy has developed surgery must still be considered the most important procedure. It is true that

the great majority of cures have been in cases of adenoma or nodular goiter which were found after removal to contain early carcinomata. In these cases the prognosis is quite good if the growth has apparently been entirely removed and the work has been done gently without excessive tearing of the gland. In advanced malignancy, and I am almost convinced in any gland in which a positive diagnosis of carcinoma can be made before operation, radiation offers the only hope of prolonging life. I believe it is useless to expect a cure when there is fixation to any adjacent tissue or dyspnea due to compression of the trachea. In these cases there have probably been metastases or the necessary operation for complete removal of the growth will be so extensive as to kill the patient. As some of these growths seem to be quite radio-sensitive it is much better to do without operation entirely, or if the condition is found at operation to close as gracefully as possible and then treat with massive radiation. In any event I believe that radiation should be employed in all cases following surgery.

In a recent article Pemberton and Fricke detailed the treatment followed at the Mayo Clinic in cases of carcinoma of the thyroid gland as follows:

- (1) Cases with obvious metastases are not operated.

- (2) When the tumor is found to be encapsulated and definitely localized the entire growth is removed.

- (3) When the tumor is found to be diffuse the entire involved lobe is removed.

- (4) If the growth is fixed to the surrounding tissue the involved lobe is removed if possible.

- (5) If the lobe cannot be removed, radium needles are implanted. In all operated cases a large rubber tube is placed in the wound through which radium is inserted after operation. X-ray therapy is used following the radium in most cases and deep therapy is employed whenever there are metastases.

- (6) Last, but far from least, all nodular goiters and adenomata are removed to prevent malignant degeneration.

A REVIEW OF TEN CASES OF THROMBO-ANGIITIS OBLITERANS*

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Thrombo-angiitis obliterans continues to be of great interest because of the problems it presents both from the etiologic and therapeutic standpoints. In view of the fact that the end results obtained are on the whole unsatisfactory, efforts are constantly being made to arrive at more effective methods of treatment. We feel that the presentation of these cases should be of interest because, allowing for variations in severity, it affords an opportunity to compare the efficacy of the different therapeutic measures as they are applied in the average medium-sized general hospital. Since the Colorado General Hospital opened in 1924, out of over twenty thousand admissions nine patients have been diagnosed as having thrombo-angiitis obliterans. The tenth case presented is that of an out-patient and is used with the consent of Dr. L. H. Wade, attending surgeon to the Out-Patient Department.

The diagnosis of thrombo-angiitis obliterans has been carefully differentiated from the clinical standpoint by Allen and Brown¹. These authors adequately summarize the diagnostic criteria of thrombo-angiitis obliterans as compared with arteriosclerotic disease, Raynaud's disease, and primary erythromelalgia. The work of these investigators has greatly minimized the difficulties of diagnosis. Consequently in order to accommodate this report to a limited space, the essential historical points and objective findings upon which the diagnoses were based are summarized as briefly as possible in the accompanying table.* The clinical manifestations in this series of cases are compared with those of thrombo-angiitis obliterans as summarized by Allen & Brown and it will be noted that the findings in our cases compare closely with those of these investigators. The table also affords a brief summary of the various therapeutic measures resorted to both

before and after the patients came under observation. Many of these procedures will be amplified during the course of the discussion.

As a rule, the treatment of a disease of unknown etiology is very unsatisfactory. From his careful study of the pathology involved, Buerger² concludes that the thrombotic lesion is the most important phenomenon of the disease from the standpoint of the symptomatology. Consequently most therapeutic measures have been directed toward symptomatic relief by increasing the flow of blood through the diseased vessels and by establishing adequate collateral circulation, rather than toward the eradication of possible causes. Among the various therapeutic measures which have been suggested are postural exercises; Bier's hyperemia; large quantities of normal saline by mouth, hypodermoclysis or vein; intravenous sodium citrate; roentgenization of spinal areas; diathermy; induction of fever by intramuscular or intravenous foreign protein or intramuscular sulphur; venous ligation; alcohol injection of nerve roots or peripheral nerves; vasodilatation by means of such drugs as nitroglycerin and acetylcholin; periarterial sympathectomy; and sympathetic ganglionectomy.

A majority of the above measures were employed in the treatment of this group. Circumstances such as the duration of the observation period and the duration and extent of the process determined to a large extent the measures resorted to in an individual case.

Amputation. Six out of the ten patients had amputations performed either before or after hospitalization. This is often an imperative measure of last resort because of gangrene. Amputation is also performed at times because of intractable pain. Pain, however, is not as a rule to be considered alone as an indication for amputation.

Focal Infection. The relationship of in-

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*Pathological examination of the amputation stumps in cases 7, 9, and 10 confirmed the diagnosis of thrombo-angiitis obliterans.

FEBRILE REACTIONS FOLLOWING INTRAVENOUS TYPHOID

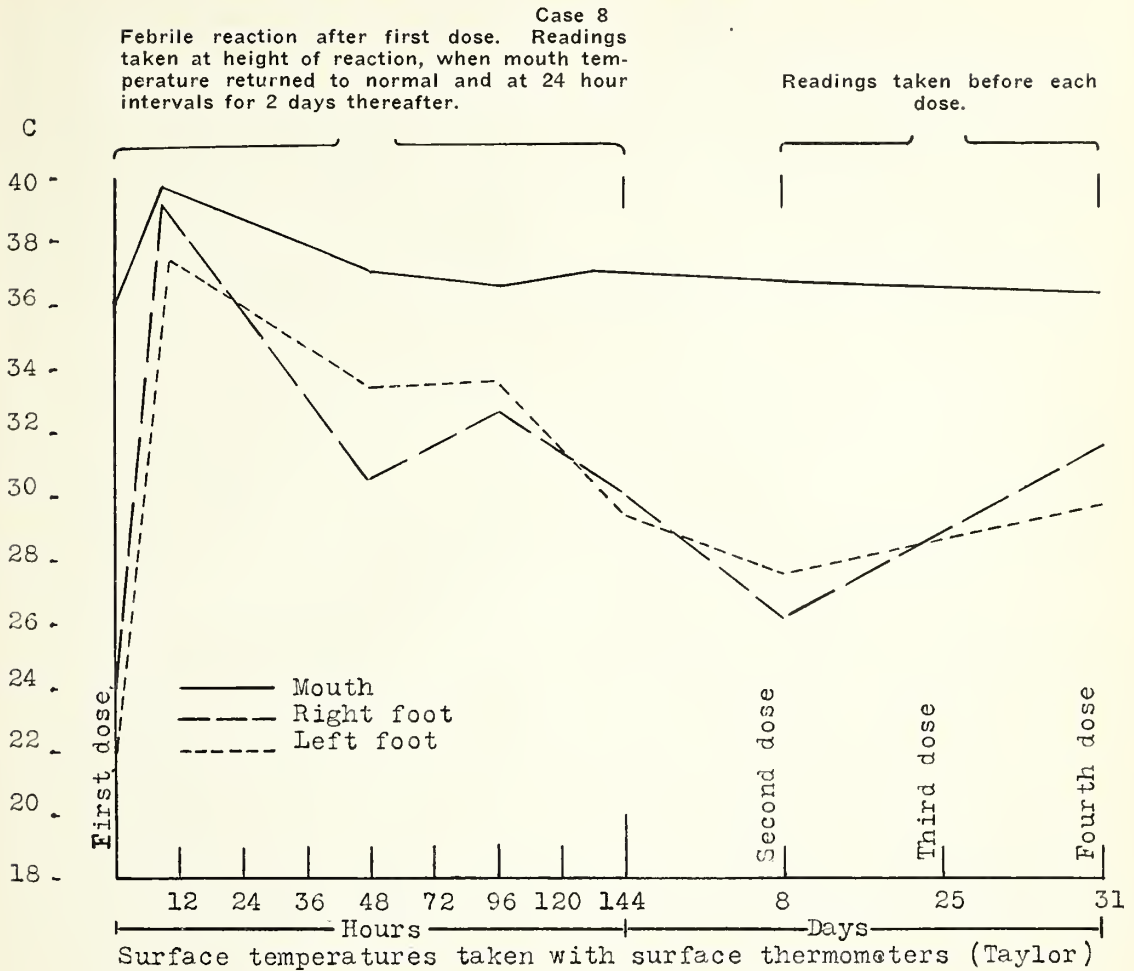


Figure I

fection to thrombo-angiitis obliterans is as yet unproved. Buerger³ considers the disease to be of infectious or toxic origin. Rabinowitz⁴ describes an organism which he has recovered from the thrombotic lesions, but the portal of entry of such organisms has not yet been demonstrated. Horton and Dorsey⁵ have done preliminary work which indicates that the lesions are the probable result of a local infectious process, but they fail to find any direct relationship to focal infection. Brown⁶ reports that a larger percentage of foci are to be found among cases of thrombo-angiitis than among the average Mayo Clinic admission. Consequently he considers it wise to remove or treat any source of focal infection which may be found. Eight of the cases reported herein had foci removed or treated before or after hospital

entry. In case 4 an autogenous vaccine was prepared from a discharging ear. The patient, however, did not remain under observation for a sufficient time to enable any conclusion to be drawn as to the efficacy of such a measure from a specific standpoint, but it seemed probable that for a time he would experience symptomatic relief as a result of the general reaction produced.

Postural Exercises and Heat. Postural exercises, first advocated by Buerger and subsequently modified at the Mayo Clinic⁷, are of great importance and, regardless of any other form of treatment, should be carried out over a long period of time. This procedure in conjunction with dry or moist heat, taking great care not to burn the skin, is the usual routine followed. In seven of

our cases symptomatic relief was obtained by this procedure.

Intravenous Saline. Silbert⁸ reports varying degrees of improvement in 84 per cent of 289 cases treated with intravenous saline. This method was only used with one patient (case 7). The condition was far advanced and failed to respond.

Diathermy. Diathermy⁹ has been advocated as a means of relieving pain and of producing vasodilatation. It should be administered daily over a long period of time. Case 9 experienced some relief from this method of treatment; case 7 was not benefited probably because of the far advanced pathology.

Typhoid Vaccine. In 1923 Goodman and Gottesman¹⁰ advocated intravenous typhoid vaccine in thrombo-angiitis obliterans for the relief of pain. Allen and Smithwick¹¹ have studied the reaction following intravenous typhoid injections, especially as pertains to the relative mouth and surface temperatures. They find that the surface temperature in favorable cases tends to remain at a higher elevation, as compared to the control readings, after the mouth temperature has returned to normal. Furthermore, they observe that in favorable cases the surface temperature assumes a permanent higher level after a few weekly injections, there is less pain, and trophic lesions heal more rapidly. Cases 4, 6, and 8 received consistent treatment and responded very satisfactorily for a time*. The pain and discoloration were greatly relieved and the feet became noticeably warmer. Cases 6 and 8 remained relieved for six months before distressing symptoms returned. The temperature observations during a portion of the treatment of case 8 are shown in Figure 1. It will be noted that the surface temperature of the feet was much higher after three doses of intravenous typhoid as compared to the temperature taken prior to treatment.

Intramuscular Sulphur. Because of the possibility of unfavorable reactions from intravenous typhoid and because repeated in-

jections often lead to absence of response, Waller¹² has advocated the intramuscular injection of 2 per cent sulphur in oil (2 c.c. bi-weekly). He states that satisfactory responses are obtained and that repeated injections will reproduce the febrile reaction as often as desired. This procedure was attempted in cases 6 and 8; a satisfactory febrile response was obtained in case 6 but both patients refused further injections because of the intense pain produced at the site of injection.

Periarterial Neurectomy. Of the various surgical procedures attempted in the treatment of thrombo-angiitis obliterans those dealing with the sympathetic nervous system have been of greatest interest. Periarterial neurectomy has been of little use in any but the conditions primarily due to vasomotor spasm. Brown and Rowntree¹³ conclude that in thrombo-angiitis this procedure has very little effect upon the surface temperature of the affected limbs. Allen¹⁴ believes that the beneficial results are not sufficiently lasting to warrant the procedure. In case 7 peribrachial sympathectomy apparently arrested the progress of the disease in the hands. At the time of this operation the patient was considered as suffering from Raynaud's disease and the case has previously been reported as such¹⁵, but in our opinion the condition in the lower extremities was typical of thrombo-angiitis obliterans. Perifemoral sympathectomy in this case gave no relief whatsoever and amputation of a leg became necessary a few weeks later. Pathological examination confirmed the preoperative diagnosis of thrombo-angiitis obliterans. Case 10 gave a history of right perifemoral sympathectomy, which resulted in very temporary relief from pain and apparently had no influence upon the subsequent course of the disease.

Ganglionectomy. Brown and Adson¹⁶ have described an operation whereby the vasomotor influence in the extremities may be eliminated by removing the cervical or lumbar sympathetic ganglia. In many cases of thrombo-angiitis obliterans Brown¹⁷ believes that perilumbar or pericervical ganglionectomy affords relief of pain after

*Dosage: An initial intravenous dose consisted of 25 million organisms. Thereafter the dosage was regulated so as to induce a mouth temperature of from 102 to 103 degrees F.

trophic disturbances set in and that it offers an additional chance of preventing the loss of limbs. If subsequent amputations become necessary he feels that they may be performed at lower levels. In selecting cases for this operation Allen and Brown¹⁸ advocate a study of the temperature reactions following intravenous typhoid. They describe a "vaso-motor index" which is arrived at by dividing the increase in surface temperature less the increase in mouth temperature by the increase in mouth temperature. They believe that cases with an index of 1.5 or more are most likely to respond to the operation. Studies of temperature changes have been made by Scott and Morton¹⁹ during surgical anesthesia, preferably spinal, thus doing away with the dangers of protein shock secondary to intravenous typhoid. Although case 8 had a vasomotor index of only 1.2 following an intravenous dose of typhoid, perilumbar ganglionectomy resulted in rather marked relief. Pain which had previously prevented sleep disappeared, the feet became warm and dry, and the discoloration was less marked. Ten weeks after operation the right calf began to pain sharply and it was noted that there was some atrophy of the gastrocnemius muscle. One year later this pain was still present but the feet remained warm, dry, and normal in color.

Drugs. The use of drugs in an effort to induce vasodilatation in thrombo-angiitis obliterans has generally been disappointing. Schwartzman²⁰ reports that marked relief of all symptoms followed a course of injections of an extract of skeletal muscle. This improvement was secondary to vasodilatation which in turn, he feels, may have been due to the presence of metabolites in the extract, of which one may have been a cholin-like substance. Recently acetylcholin has been used with some degree of success in many different types of vascular disease. Villaret and Justin-Besancon²¹ have reported favorable results in Buerger's disease. They attribute the improvement to the action of the drug in dilating the anastomotic arterioles and in diminishing any spasm which may be present in the affected vessels. Cases 5, 6,

and 10 received rather intensive treatment (26 to 32 bi-weekly doses of 0.1 gm. intramuscularly). Case 10 was far advanced, of long standing, and received no symptomatic relief; case 6 with marked symptoms but shorter duration received slight relief; case 5, of six-weeks duration, was completely relieved and the dorsal pedal pulsation returned in both feet.

While the above cases do not represent a concerted and systematic study along any one particular line, they do represent an effort to apply in each given case the most practical and logical measures available. This must of necessity be done in a general hospital where but few such cases are seen. Within the limits of this small series we have been able to compare these various methods of treatment and feel that with the advent of more recent methods of establishing collateral circulation the prognostic phases of the disease are more hopeful, although treatment is as yet highly unsatisfactory as far as a cure is concerned. Allen and Brown¹⁸ feel that thrombo-angiitis obliterans is as a rule self-limited and, if the serious aspects of the process can be forestalled until adequate collateral circulation is established by resorting to these various palliative measures, the patient can hope for permanent relief. We feel that the results obtained in many of these cases, notably cases 5, 6, 8, 9, and 10, justify this conclusion. From a study of this series it is also noted that the time interval between the onset of initial symptoms and the onset of serious complications is as a rule long. Consequently it is to be concluded that early treatment by the more efficient modern methods further brightens the prognosis.

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SUMMARY OF CASES—CLINICAL DATA

	1	2	3	4	5	6	7	8	9	10	Summary	Summary of Allen & Brown
Approximate duration of symptoms prior to observation	21 yrs	17 yrs	18 yrs	4 yrs	3 mos	11 yrs	2 yrs	2 yrs	1 yr	10 yrs		
Age of onset of symptoms	30	25	20	36	23	27	45	22	45	29	20-45 years	25-45 years
Sex	M	M	M	M	M	M	M	M	M	M	100% males	Males 99%
Race	G	J	G	G	G	G	G	J	G	J	30% Hebrew	50% Hebrew
Pulsation of peripheral arteries	A	A	A	A	A	A	A	A	A	A	100% absent***	Absent 50%** Diminished 50% Normal 5%
Excessive rubor with dependence	P	P	P	P	P	P	P	P	P	P	100% present***	Present
Excessive pallor with elevation	P	P	P	P	P	P	P	P	P	P	100% present	Present
Claudication	A	P	P	A	A	A	A	P	A	P	40% present	Usually present
Gangrene	P	P	P	P	A	P	P	A	P	P	80% present	Common
Rest Pain	P	P	P	P	P	P	P	P	A	P	90% present	Very severe
Superficial phlebitis	A	A	A	A	A	A	A	P	A	A	10% present	30% of cases
Temperature of extremities	not low	low	low	low	not low	low	low	low	low	low	80% low	Low
Edema	A	A	A	A	A	P	P	A	A	P	30% present	Frequent
Approximate time under observation	2 wks	2 wks	3 wks	2 mos	5 mcs	16 mos	21 mos	2 yrs	3 yrs	7 yrs		

TREATMENT AND SUBSEQUENT RESULTS

Amputation	---	---	+	+	---	+	+	---	+	+
Focal infection	?	---	??	??	---	??	?	?	??	??
Autogenous vaccine	---	---	---	?	---	---	---	---	---	---
Postural exercise and local heat	-	++	-	+	+	+	+	+	-	+
Intravenous saline	---	---	---	---	---	---	---	---	---	---
Diathermy	---	---	---	---	---	---	---	-	?	---
Intravenous Typhoid	---	---	---	2+	---	2+	-	2+	---	-
Intramuscular sulphur	---	---	---	---	---	-	---	-	---	---
Peribrachial sympathectomy	---	---	---	---	---	---	4+	---	---	---
Perifemoral sympathectomy	---	---	---	---	---	---	-	---	---	??
Perilumbar ganglionectomy	---	---	---	---	---	---	---	2+	---	---
Acetyl Choline	---	---	---	---	4+	?	---	---	---	-

KEY

A—absent G—Gentile
P—present J—Jew
***—palpatory determination
**—oscillometer determination
—no improvement
+—degree of improvement
?—questionable improvement
*—treatment before hospitalization

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Fig. 1. Cross-section of a benign ovarian fibroma.

weighing fourteen pounds in a negress of thirty-five.

REPORT OF A CASE

Mrs. R. E. W., aged 68, gives the following history: About four months ago, without any warning, she had a rather severe uterine hemorrhage, bright blood, no odor, which subsided after two days without medical treatment. She continued for two weeks without further bleeding or vaginal

CASE REPORTS

BENIGN OVARIAN FIBROMA

REPORT OF TWO INTERESTING CASES

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LAMAR

In Kelly's Gynecology (1928) under classification, "Connective Tissue Tumors of the Ovaries," he states, "Fibroma is among the rarest of pelvic tumors and characterized by an indefinite multiplication of all the connective tissue elements of the ovary at the expense of the other histological components. The mass thus becomes a fibroid ovary which may further contain degeneration cysts, dilated blood spaces, and lymph-spaces."

They are extremely hard, white or pinkish in color, lobed with deep or shallow furrows, and tightly covered with smooth, thin peritoneum. Macroscopically, there is no line of demarcation from the ovarian stroma.

In the first 10,000 gynecological admissions to the Johns Hopkins Hospital, there were ten large fibroid ovaries, and three small calcified tumors.

Unless the growth is small, ascites is frequently present. This condition is usually free from pain. The tumor may grow slowly for years. August Schachner reports one

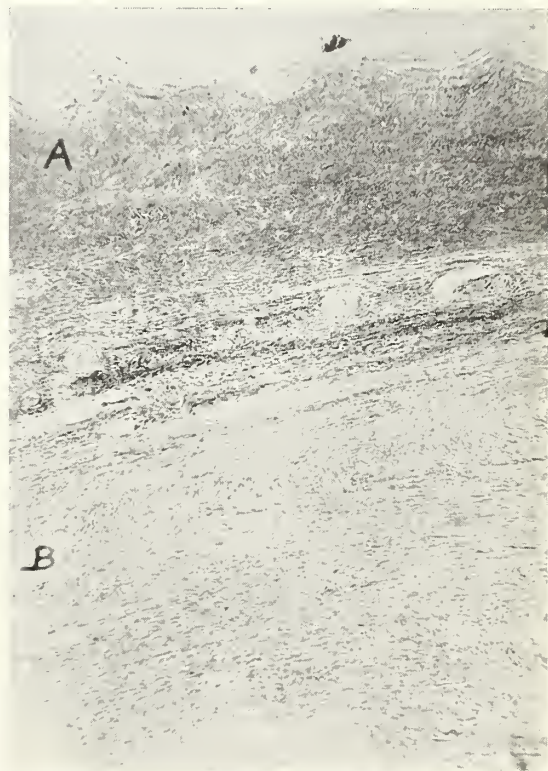


Fig. 2. Microscopic section. A. Compressed ovarian stroma. B. Tumor.

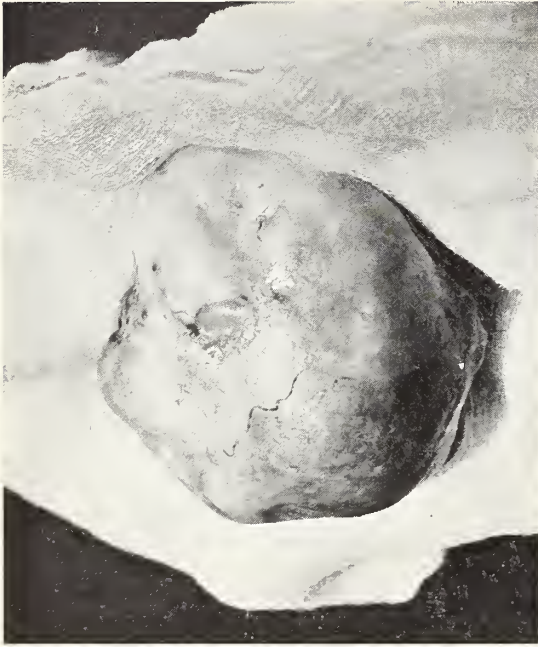


Fig. 3. Benign ovarian fibroma.

discharge, when a second hemorrhage more severe than the first occurred. During the following three months, she had several more severe hemorrhages but was practically free from bleeding or vaginal discharge between the hemorrhages. Has a good appetite, no nausea or vomiting, and has lost no weight. Has three living healthy children, four difficult deliveries and no miscarriages. Began to menstruate at age eleven, always regular, excessive in amount and painful. Passed through the menopause at 45 without much trouble.

Patient has been an attendant to an invalid for thirteen years and thinks lifting him has caused the trouble. She came under my observation for the first time March 13, 1931. A large woman 5 feet 6 inches, weighing 160 pounds, well preserved and well nourished, who passed a good general physical examination. Heart and lungs, essentially negative; abdomen, prominent and fat.

Bimanual examination revealed a tumor a little to the right of the midline about the size of a two and one-half months pregnancy. This tumor felt firm and nodular. No other growths could be felt. I thought this was a fibroid uterus. The cervix was not lacerated. There was some cervical erosion which bled rather freely when rubbed, which made me suspicious of carcinoma.

On March 17, under ether anesthesia, through a central incision, the following pathology was found: A small firm anteverted, senile uterus, normal left tube and ovary, normal right tube. Right of the uterus and close to it, a greyish white, hard, encapsulated mass, slightly lobulated, measuring 22 mm. x 20 mm., was removed.

Pathological Report: The mass is very hard, greyish white in color; it is encapsulated. Its size is about 3x2x2 inches. The surface is smooth.

On cut sections the growth shows a wavy structure, consisting of bundles which intertwine.

Microscopic sections reveal a benign and well encapsulated hard fibroma. It consists of dense connective tissue which contains a uniform distribution of spindle-shaped fibroblasts. There is no evidence of malignancy. In one portion of the section there is what appears to be a compressed atrophic ovary.

Diagnosis: Benign ovarian fibroma.

Since there was no pathology in the abdomen to account for the hemorrhage, a radical hysterectomy was deemed advisable because of the condition of the cervix; however, the patient was not doing well so this procedure was not carried out.

On April 5, 1931, a capsule of radium, 75 milligrams, was introduced into the cervix for forty-eight hours. On examination after two weeks, the cervix looked smooth and healthy, with no further bleeding. Unfortunately, I lost track of the patient after she left the hospital.

CASE NO. 2

Mrs. W. H., aged 52. A left ovarian tumor was found during a routine exploration following an operation for the removal of a chronic appendix.

Pathological report: The ovarian tumor measures about one inch in diameter. The gross appearance is that of a dense greyish white, sharply defined mass. It can almost be shelled out of the ovary, and is adherent over a small area of its surface. Here it is attached to the capsule of the ovary. The ovarian tissue seems to be compressed by the mass.

Microscopic examination reveals a benign ovarian fibroma. It seems to originate in the capsule, with which it is continuous. The mass consists of fibrous connective tissue. It is fairly rich in fibroblasts. There is some hyaline degeneration. The growth has a good blood supply, containing many small arterioles. The connective tissue is often arranged concentrically around the arterioles. Growing from the capsule, the spherical mass is sharply defined and has compressed the adjacent ovarian tissues. The ovary contains several small follicles and a few small cysts. Diagnosis: Benign ovarian fibroma.

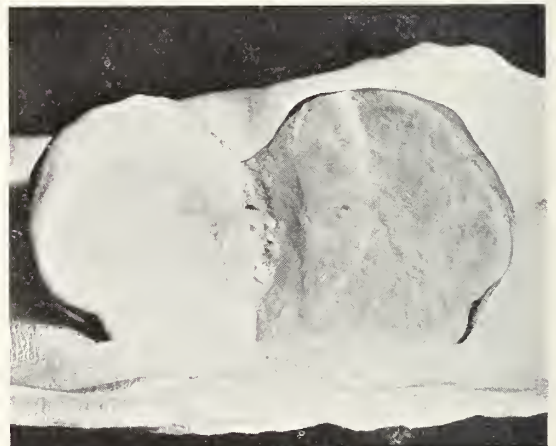


Fig. 4. Case No. 2. Benign ovarian fibroma, gross section.

FURTHER CASES OF UNDULANT FEVER IN COLORADO

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The annual reports of the Colorado State Board of Health show that up to January 1, 1933, twenty cases of undulant (Malta) fever were reported from eleven counties as indicated in Table I.

TABLE I.

Showing the Origin of Cases of Undulant Fever Reported to the State Board of Health in Colorado, 1928 to 1932

County	1928	1929	1930	1931	1932	Total
Arapahoe				1		1
Boulder					1	1
Denver				2	3	5
Elbert			1			1
El Paso		3				3
Kit Carson			1			1
Larimer	1			1		2
Otero				1		1
Pueblo		1		1	1	3
Sedgwick		1				1
Yuma				1		1
Total	1	5	2	7	5	20

Their wide distribution through the eastern half of the state is shown in spot map 1.

Carey and Newsom¹ reported the first case of undulant fever in the literature of Colorado in 1929, and Huelsmann² the second in 1930. Both were diagnosed by agglutination tests with *Bacterium abortus* and both were ascribed to the drinking of cow's milk. The causative organism was isolated in the second instance, but not in the first. Conner and Meier³ have seen fourteen cases of undulant fever in Denver and cite positive blood serum agglutination tests made by G. W. Stiles with cattle and swine.

Personal Experiences With Human Cases

In addition to the possible cases which were revealed through agglutination tests of institutional and industrial groups, we have had personal experience with three cases of undulant fever.

CASE 1

December 17, 1930, M. D. O., female, aged 25, a laboratory technician, developed intermittent abdominal cramps, backache, fever and chills, which persisted for about two days and resulted in her admission to the Colorado General Hospital. Physical examination gave essentially

negative results and all but the recent history was immaterial. Next morning she was unable to void. Catheterization was followed by frequent urination with burning. The abdominal pain slowly subsided but the backache persisted.

The following are the important laboratory findings:

Urine: Catheterized December 19, amber, hazy, slight acid, sp. gr. 1.022, albumin 0, sugar 0, acetone + + +, indican +, casts 0, leucocytes + + +, erythrocytes 0, epithelial cells +, bacteria negative on microscopic and cultural examination (blood agar and eosin methylene blue lactose agar plates at 24 hours).

Blood: December 19, leucocytes 23,600, 88 per cent polymorphonuclears, 10 per cent small lymphocytes, 2 per cent endothelial cells. December 20, erythrocytes 4,560,000, hemoglobin 82 per cent (Dare), leucocytes 21,000, 93 per cent polymorphonuclears, 3.7 per cent small lymphocytes, 3.3 per cent endothelial cells. Blood culture (10 c.c. in 200 c.c. glucose broth) reported negative at 48 hours.

Urethral smears: December 22, a few squamous epithelial cells, no recognizable pus cells, a few Gram negative rods.

Cervical smears: December 22, a few pus cells, no bacteria seen.

A provisional diagnosis of acute cystitis with urinary retention, pyelitis, and urethritis of undetermined origin, was made. Treatment consisted of rest in bed, with urinary antiseptics and general symptomatic remedies. The leucocytosis, temperature, and pain rapidly subsided and the patient was dismissed from the hospital December 23.

During convalescence at home the patient took her own temperature for about three weeks and noticed a daily fluctuation from 97.8° F. in the morning to about 101.2° F. in the afternoon. There were no night sweats, but the backache and malaise continued. Upon returning to work, at the suggestion of Dr. E. R. Murgage, she tested her own blood serum against *B. melitensis* with a resulting positive reaction at 1:500. No blood cultures were made, however, at this time. Four months later the agglutination reaction was positive only at 1:80. A secondary anemia developed during this period and was still persistent after eighteen months, but disappeared in about twenty-eight months. It is believed now that the acute attack in 1930 was occasioned by *B. melitensis*.

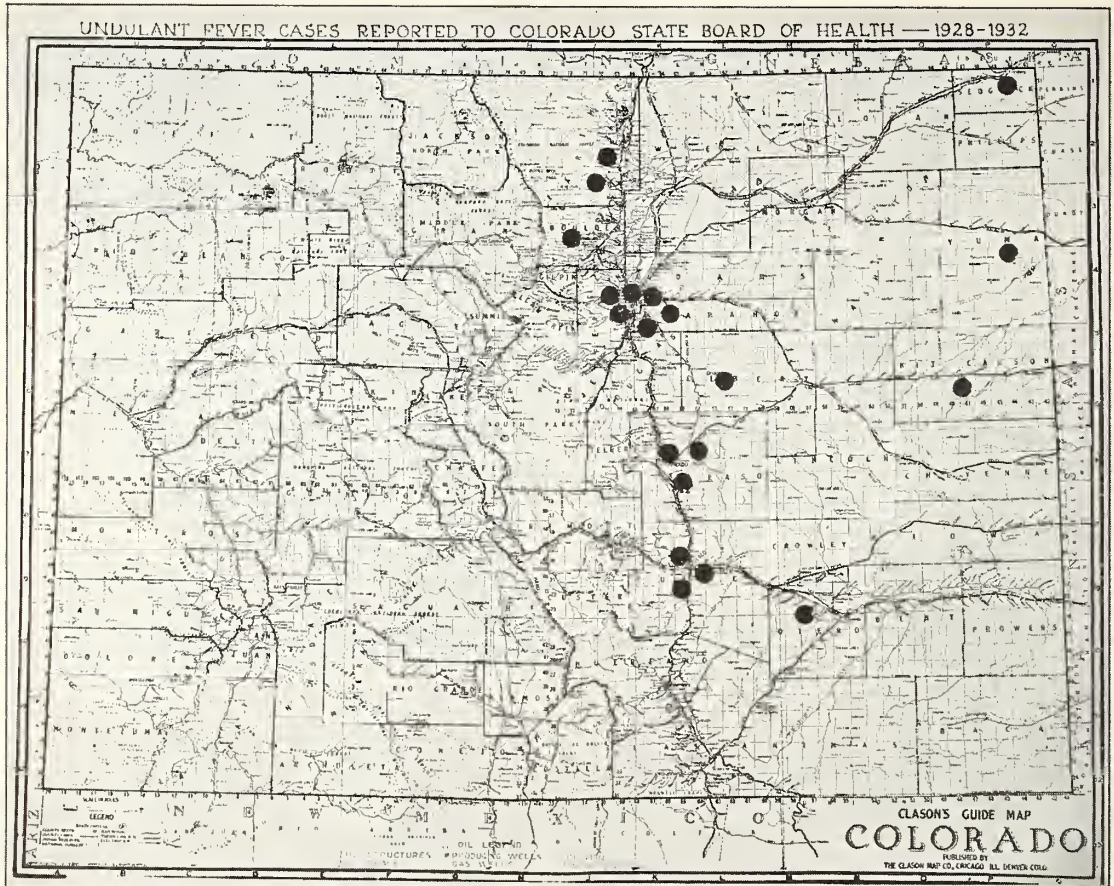
There was no history of contact with livestock and the patient had never drunk much milk, but used raw cream on fruits and cereals.

CASE 2

August 1, 1931, A. G. L., male, aged 51, a farmer, was admitted to the Colorado General Hospital with a history of general malaise with severe aching all over, six weeks previously. The aching lasted only a week, but the malaise continued. Three weeks later there were six daily attacks of recurrent chills with fever (106° F.) and headaches in the afternoons and evenings. A local physician told him he had "typhoid-malaria."

Physical examination showed a poorly nourished man with high fever, slow pulse, rales in the left apex, pyorrhea, and chronic tonsillitis. There were no significant findings in urinalyses or microscopical blood examinations. Malaria could not be confirmed and agglutination tests for typhoid fever were negative. Cultures from feces and urine were likewise negative for the enteric group of microorganisms. There was no evidence of active tuberculosis in the chest by

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Spot Map No. I. Undulant Fever Cases Reported to Colorado State Board of Health, 1928-1932.

x-ray, and examinations of sputum for tubercle bacilli were negative.

The strikingly characteristic form of the daily fluctuating temperature curve finally suggested the agglutination test for undulant fever which was positive at 1-2000 with *B. melitensis* on August 15.

Blood cultures were made on admission and again on August 7; both were reported negative at 5 and 3 days respectively, but one made August 20 slowly developed *B. melitensis*; the organism may have been present in the earlier cultures also but missed through lack of sufficiently prolonged observation.

Further inquiry elicited that both hogs and milk cattle on his ranch were known to have infectious abortion.

Aside from symptomatic treatment, the patient's teeth were extracted. He was discharged as well September 11, 1931.

CASE 3

May 19, 1931, O. G., male, aged 44, a rancher, was examined by Dr. C. T. Burnett following attacks of profuse night sweats with fever (100° F.), occasional chills, occipital headaches, insomnia, and loss of strength. There was a history of typhoid fever in 1916 with good recovery and of appendicitis in 1918.

Physical examination showed a well developed and well nourished body. There was some cyanosis of the hands, recently developed, and some clouding of the right antrum but no drainage. Other physical findings were essentially negative.

The urine contained albumin and there was a moderate aleukemia.

One of us (H) examined cultures from blood and urine with negative results. A diagnosis of undulant fever was based upon positive agglutination of *B. melitensis* (abortus) in a serum dilution of 1-1000.

There was a history of infectious abortion among the patient's cattle from which raw milk was used. Federal veterinarians stated that the herd had at one time been used in a demonstration test of a living vaccine for infectious abortion. It seems reasonable to suppose that this patient may have become infected either through contact with cattle or by drinking their milk.

Summary

It is unnecessary to review the published evidence that the drinking of raw cow's milk containing *B. melitensis* (*B. abortus*) may lead to undulant fever in man. The work of Evans⁴, Moore and Carpenter⁵, Carpenter^{6, 7}, Carpenter and Boak⁸, Carpenter and King⁹, Hasseltine¹⁰, Hasseltine and Knight¹¹, and others, seems sufficiently convincing.

Yet it appears that undulant fever appears among those who drink infected milk less frequently than would be supposed.

Morales-Otero¹² has commented upon the great prevalence of bovine abortion in Puerto Rico and the infrequency of undulant fever and showed that while porcine strains of *B. abortus* were able to penetrate cutaneous abrasions in man, causing undulant fever, bovine strains were unable to do so. This writer, however, admits the validity of the evidence for transmission of cow's milk in the United States and in Rhodesia.

Although only twenty cases of undulant fever have been reported officially in Colorado, the insidious character of this disease, the infrequency of blood cultures in routine diagnosis of mild fevers, the slow growth of *Bacterium melitensis* in primary cultures, the failure to apply the specific agglutination test, all combine to prevent its recognition, so that it is probably far more prevalent than the available data indicate. Hardy's spot map for 1929 shows that cases of undulant fever were reported from every state in the Union¹³, the incidence being roughly proportional to density of population. Hasseltine¹¹ listed 952 cases in 1929 and 1,385 in 1930, which must surely represent only a small percentage of the number of actual cases. We can only conclude that greater vigilance is required in the recognition of undulant fever.

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EARLY DIAGNOSIS

AMEBIASIS

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The recent epidemic in Chicago of infestation with a very virulent strain of *Entameba histolytica* has focused the attention of the entire country upon a clinical and public health problem of considerable importance. The widespread publicity accompanying this epidemic should serve to lower the threshold of suspicion of the possible presence of this most treacherous protozoa as a cause of disease. In spite of the fact that there has been much written about the occurrence of this parasite in the North Temperate Zone, since Sistrunk's first paper in 1911, comparatively little interest has been aroused in this section of the country.

There is little room for doubt that in the past many cases have gone undiagnosed. The possibility of amebic infestation has rarely entered the minds of northern clinicians heretofore. Neither the knowledge of the morphology of this protozoan nor the proper method of demonstrating it have been sufficiently stressed in either undergraduate or graduate medical teaching in the north. I am told that at Tulane University in New Orleans each student is required to examine 1,000 stools before he is allowed to graduate. It is unlikely that a student who has had the importance of intestinal protozoa emphasized in such a way will fail to recognize amebiasis. Although it is true that it is

impossible to make every doctor a finished protozoologist, it is possible for all practical purposes to teach most students a working knowledge of the subject.

The keynote of early recognition of amebic infestation is complete and thorough investigation of symptoms referable to the bowel, particularly diarrhea and the passage of blood, mucus, or pus from the anus. Because of the fact that the symptomatology of organic lesions of the bowel is so variable, it is impossible to make an accurate diagnosis without the use of digital and abdominal examinations, proctosigmoidoscopy, stool examinations, and usually barium enema studies. One must never lose sight of the fact that the presence of *Entameba histolytica* may not entirely or even in part explain the symptoms of which the patient complains. It is estimated that anywhere from 3 to 10 per cent of the population harbor *Entameba histolytica* without symptoms which can be definitely attributed to this protozoan. These carriers may however develop trouble later on and are important sources of dissemination of the disease and should be treated. It is important to keep in mind the fact the discovery of *Entameba histolytica* may be only an incidental finding in cancer, polyposis, or some other non-amebic inflammatory disease of the colon such as the Logan-Bargen type of ulcerative colitis which are really the chief offenders in the production of symptoms. There is nothing about the *Entameba histolytica* which renders a patient immune to other organic disease of the colon. The embarrassment of the belated discovery of a carcinoma of the colon in the patient harboring *Entameba histolytica* after several weeks or months of anti-amebic treatment by means of examinations which should have been done before, is usually experienced but once by the same physician. It must be said, however, that mitigating circumstances at times prevent complete study of certain cases. The discovery of the *Entameba histolytica* in a patient acutely ill with severe dysentery is probably sufficient for the time being. In this instance treatment should be instituted immediately. If however, the re-

sponse to treatment is not prompt, particularly if anti-amebic drugs have not been used previously, a healthy suspicion that the ameba is not the source of the trouble should be entertained. In at least 90 per cent of cases in the temperate zone, the patient is practically symptom-free at the end of three to seven days of treatment when the ameba is actually responsible for the symptoms. Lack of facilities for study or unwillingness on the part of the patient to undergo adequate examination are stumbling blocks which frequently greatly hamper the physician in the management of amebiasis.

The early, or for that matter the late, diagnosis of amebiasis is directly dependent upon the physician's threshold of suspicion of its presence. The history of diarrhea is by all odds the most important indication for amebic investigation. Detailed inquiry is often necessary in order to elicit this history. If every case of diarrhea is properly investigated, the diagnosis will rarely be missed. The free living motile forms of ameba are as a rule easily found in the diarrheal stool but not in the formed stool where they usually exist in the encysted stage. Except in case of severe diarrhea it is usually advisable to administer magnesium sulphate before the stool examination. This procedure brings out the motile forms even when the stools are formed previously. We ordinarily instruct the patient to be sure that the bowels have moved freely the afternoon before the examination. The morning the stool is to be examined the patient takes one ounce of magnesium sulphate twenty minutes before breakfast and comes directly to the laboratory after breakfast where the fresh stool is collected in a warmed container. Specimens preferably from a mucus-containing portion of the stool are stained with 1-10,000 eosin warmed to body temperature and immediately examined. The importance of examining a fresh stool, kept warm, can hardly be overemphasized. In the majority of cases the above measures are adequate for practical purposes. The characteristic movement and morphology of the *Entameba histolytica* can in this way be observed. At least three examinations of the stools on suc-

cessive days are necessary to rule out the presence of *Entameba histolytica*. Ordinarily is it unnecessary to use cultural methods. Circumstances may, however, require the examination of stained fixed specimens for the positive identification of the type of ameba.

In most cases we prefer, as a routine, after the general history and physical examination, which of course includes a careful digital and bimanual examination of the rectum, to perform proctosigmoidostomy before examining the stool. There are two chief reasons for this. First, to rule out associated bowel disease, especially cancer and chronic ulcerative colitis, which may cause identical symptoms and can usually be accurately diagnosed by this method of examination. Second, because anywhere from 10 to 40 per cent of cases of amebiasis reveal a specific type of ulceration in the rectum and sigmoid. Amebic ulcers characteristically are seen most often on the rectal valves. They are round or oval in shape and often are covered with a white cap of mucus. Smears taken directly from these ulcers usually reveal the active motile *Entameba histolytica*. The mucous membrane between these ulcers is usually normal. It is rarely difficult to differentiate between amebic ulcerative colitis and the Logan-Bargen type of chronic ulcerative colitis proctoscopically. I have encountered a few patients harboring the *Entameba histolytica* with a proctoscopic picture closely resembling ulcerative colitis, who made prompt and complete recovery on anti-amebic treatment both from the standpoint of clinical symptoms and restoration of the rectal mucosa to normal. These cases are rare and usually of severe type. A considerable percentage of patients with the Logan-Bargen type of ulcerative colitis harbor the *Entameba histolytica*, the eradication of which has very little if any beneficial effect on the course of the disease.

The question can be justly raised, "Do not patients harboring the *Entameba histolytica* have difficulties due to this protozoan in the absence of diarrhea?" The answer is yes, but very rarely. It is this exceedingly small group which offers the

greatest difficulty in diagnosis and management. Amebic liver abscess has been known to occur in the absence of diarrhea. If a patient with no diarrheal history develops abdominal or rectal complaints and has resided in the tropics or an area where the disease has reached epidemic proportions, investigation for the ameba is justified. In my experience, however, these investigations are apt to be sterile and, even if the ameba is discovered, unless prompt response to treatment is obtained it is wise to look elsewhere for the source of the trouble. No end of confusion and trouble has resulted from attributing various widespread symptom complexes and diseases such as arthritis and Hodgkin's disease to the *Entameba histolytica*. The evidence that this organism is responsible for the various neuroses and organic disease other than actual inflammation and ulceration in the colon, hepatitis, liver abscess and its sequellae, is very meager. I have seen a good many patients unnecessarily invalidated by the fact that they knew that they harbored the *Entameba*. The symptomatology of amebiasis is usually strictly limited to the bowel or the liver.

In a certain number of cases, barium enema studies of the colon give diagnostic evidence which if not always pathognomonic is at least suggestive of amebic invasion of the colon. Irritability of the cecum and terminal ileum with hyperperistalsis is not uncommonly encountered and in some cases the roentgen ray reveals a patchy type of deformity of the colon most marked in the region of the cecum, which is almost specific. The roentgen ray is of course of great aid in ruling out associated lesions of the colon.

Every physician should be familiar with a good routine of anti-amebic treatment and should remember the value of the so-called therapeutic test. Although scientific accuracy demands the discovery of the *Entameba histolytica* as the "sine qua non" in the diagnosis of amebiasis, one occasionally encounters diarrheas or ulceration in the rectum suggestive of the amebic type which respond favorably to anti-amebic treatment even though repeated efforts to demon-

strate the ameba have been unsuccessful. Whether this response indicates that an undiscovered ameba was responsible for the clinical picture or whether the effect was "non-specific" or even whether recovery occurred independent of treatment, it is impossible to determine. It is very likely justifiable to try a short course of anti-amebic treatment when facilities for study are lacking in certain selected cases. In the absence of prompt response to treatment, however, one is never justified in persistence on this admittedly somewhat haphazard basis.

The practical value of early diagnosis is the ability to institute early treatment and bring about prompt and complete cure before a long period of disability or complications have occurred. This can be accomplished in the great majority of cases of amebiasis. Badly strictured colons, the result of longstanding amebic infestation with secondary infection and liver abscess, would be relics of by-gone days if patients were promptly diagnosed and treated and if proper sanitary measures were universally adopted. I can hardly refrain from saying something of the public health aspects of amebiasis at this point. Amebiasis is a disease the dissemination of which is directly dependent upon the excreta of one human being finding its way into the food and drink of another. Amebiasis is transmitted usually when the ameba is in the relatively resistant encysted stage. The cysts live as long as six months in water. It requires a hundred times as much chlorine as in ordinarily used in chlorinated drinking water to kill the cysts of the ameba. Clinically well but uncleanly carriers, as well as active cases are the sources of amebic infestation either through the handling of food or their excreta coming in contact with food and drink in localities where raw sewage enters the water supply for either drinking purposes or irrigation of vegetables. Some adequate method of treating sewage before it enters rivers, lakes, and streams will undoubtedly do much to prevent future outbreaks of this disease, one which is due, unquestionably, wholly and solely to filth.

PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

The Smallpox Situation

With the usual crop of unfounded rumors attending all outbreaks of epidemic disease, the Secretary of the State Board of Health of Colorado was asked to give a brief report of the smallpox situation in this state.

Dr. S. R. McKelvey's letter gave the following information:

For several years there has been no great number of smallpox cases in this state until late in 1933. During the last few years no great number has been vaccinated perhaps due largely to the usual objections of an element composed of a number of organizations and individuals. By active measures the recent outbreak was prevented from becoming a very serious epidemic. A considerable number of the opposing element took smallpox and some of them died.

The State Board of Health has always stood firmly in favor of vaccination and revaccination. Seeing that a very serious condition was imminent I addressed an open letter to each of the two hundred local health officers in our state urging vaccination of everybody and not forgetting school children. In this manner I desired through local health officers to reach most physicians. In the letter I explained how health officers might, for a period of thirty days, obtain vaccination material through this office at the rate of five cents for each case. The low price was arranged as an inducement to bring about general vaccination of indigents and all others. No attempt was made to determine who was or was not able to pay for medical service and no attempt was made to fix fees to be charged by physicians. Physicians throughout the State did their part splendidly and I want to thank them for their excellent cooperation.

I feel safe in saying that physicians of Colorado within the last few weeks must have vaccinated 100,000 persons. On this date there are only three or four cases of smallpox within the state. Seven deaths have occurred. The total number of cases reported is one hundred. The number of cases reported by counties is as follows: Adams 9, Alamosa 1, Arapahoe 3, Chaffee 1, Cheyenne 9, Denver 11, Jefferson 23, La Plata 1, Larimer 1, Las Animas 3, Lincoln 1, Logan 3, Morgan 3, Prowers 1, Pueblo 1, Washington 2, Weld 25 and Yuma 2.

Death-Rate for 1932 Lowest on Record

The general death-rate for continental United States for 1932 was 10.9 per thou-

sand for estimated population, the lowest rate ever recorded since the collection of mortality statistics was begun in 1900. The rate is based on reports from the U. S. Death Registration Area (exclusive of Utah), which is estimated to represent 96.3 per cent of the population of the United States. The Bureau of the Census has issued comparative figures for the years 1930-1932 showing the death-rates from individual causes. In eighteen groups of causes into which the table is divided, thirteen groups showed decreases in the total number of deaths, three showed increases, and two remained about the same. Groups in which large increases occurred were cancer and other malignant tumors and diseases of the circulatory system. In 1932 there were 255,802 deaths from cancer of the stomach and duodenum, 14,871 from cancer of the uterus, 11,863 from cancer of the breast, and 10,420 from cancer of the liver and biliary passages. Deaths from diseases of the circulatory system increased numerically from 280,403 in 1930 to 294,596 in 1932. A noteworthy decrease was in tuberculosis, which caused 9,000 fewer deaths in 1932 than in 1930, a decrease in rate from 71.7 to 63.—The Diplomat, December, 1933.

Home Accidents Increase Among Adults

The home is becoming a more hazardous place for grown-ups but a safer place for children. In the experience of the Metropolitan Life Insurance Company, the rate from fatal accidents in the home rose nearly 42 per cent among persons at ages fifteen and over, between the years 1924 and 1932; and the rate from these accidents, last year, was the highest on record. The increased number of men and women killed in domestic accidents may be a reflection of the business slump which has forced large numbers of persons to remain at home, who, in normal times, would be employed elsewhere during a large part of the day.

Among children, the trend of the death rate from domestic accidents has been definitely downward. In the experience of the Metropolitan Life Insurance Company, the rate from home accidents declined nearly 23

per cent among boys and girls below age 15, in the past nine years.

It is interesting to note that, whereas formerly children suffered a higher death rate from domestic accidents than did adults, the reverse has been true for the three past years. The teachings of the safety education campaigns conducted in the schools seem to have carried into the homes as well as onto the streets, where there has been, also, a reduction in the number of childhood accidents.—From Statistical Bulletin, Metropolitan Life Insurance Co., June, 1933.

BOOK REVIEWS

Behind the Doctor. By Logan Clendenning. With illustrations from contemporary sources, portraits, photographs, and original drawings by James E. Bodrero and Ruth Harris Bohan. New York. Alfred A. Knopf. 1933. 458 pages, price \$3.75.

The medical profession insists on the importance of its historical background; and only one who knows something of the history of medicine can judge how much its history, traditions and slowly developed methods of combatting disease are worth. This book presents medical history, not in tedious didactic statements, but in a series of dramatic word pictures, portraying the most epoch-making advances in medicine in the period of written history—more than 2000 years. Dr. Clendenning has already written successful books for popular reading on "The Human Body," and on "The Care and Feeding of Adults with Doubts About Children."

In this book his first picture is of prehistoric trephining of the skull, to let out "the demons that cause epilepsy." The second chapter deals with empiricism and the Egyptian record, written on rolls of papyrus. The third chapter takes up "Hippocrates, the Greek—The End of Magic." Chapter Four deals with Galen, the Physician of Rome. Then the story jumps to the Middle Ages—Vesalius, Harvey and Servetus and the microscope. The advances in the treatment of disease resulting from the development of the fundamental sciences are traced from Paré to Jenner, and the idea of preventing plague, pestilence, and scurvy as developed by the observations of Dr. John Lind and in the voyages of Captain Cook.

Under the title "Science and Practice United," the advances are traced from John Hunter in science and surgery to Semmelweis and Sir James Simpson, removing the perils and pains of childbirth. "Fundamental Science of the Nineteenth Century," takes up the cells in health and disease, germs, and the new physiology. The book concludes with four chapters, a hundred pages, on modern medicine and surgery, and a postscript ending with: "The only safe prediction is that there is no limit to the accomplishments possible." But appended are ten pages of Notes and Bibliography which open up to the physician or med-

ical student a broad field in which to study medical history. The volume is prepared for the lay reader but may serve equally well the professional man who seeks a broader view of his profession.

EDWARD JACKSON.

The Vitamins in Health and Disease. By Barnett Sure, Ph.D., Professor of Agricultural Chemistry, University of Arkansas, Fayetteville, Arkansas. Baltimore. The Williams and Wilkins Company. 1933. 206 pages, price \$2.00.

The story of the vitamins told in non-technical language with emphasis on human relations and applications. Clinical evidence concerning effects on milk secretion, infant nutrition, growth, appetite, and the teeth. The vitamin content of food-stuffs. Specific recommendations are offered on how to insure maximum vitamin content in the diet. Detailed information about the vitamin diet during pregnancy, the nursing period, and the first year of life.

Technic of Local Anesthesia. By Arthur E. Hertzler, A.M., M.D., Ph.D., LL.D., F.A.C.S. Professor of Surgery in the University of Kansas; Surgeon to the Halstead Hospital, Halstead, Kansas; to St. Luke's Hospital and St. Mary's Hospital, Kansas City, Missouri; and to the Providence Hospital, Kansas City, Kansas. Fifth Edition. With 148 illustrations. St. Louis: The C. V. Mosby Company. 1933. 292 pages, price \$5.00.

This book contains 24 chapters and 148 illustrations, dealing in a very concise and masterly manner with Local Anesthesia. Hertzler, common to all his writings, has the enviable ability of confining himself to the practical, and therein lies the extreme value in this text. The subject is confined to the ordinary operative procedures in which local anesthesia is frequently indicated, and the illustrations depict very nicely the various steps of the procedure.

The book is a complete and authoritative reference work upon an interesting and valuable subject.

DUVAL PREY.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M.D., Visiting physician, Johns Hopkins Hospital, Baltimore, Md. With the collaboration of Francis Gilman Blake, M.D., Yale University, New Haven, Conn., Vernon C. David, M.D., Rush Medical College, Chicago, Ill., Dean Lewis, M.D., Johns Hopkins University, Baltimore, Md., John W. McNee, M.D., University College Hospital, London, Eng., John H. Musser, M.D., Tulane University, New Orleans, La., Walter W. Palmer, M.D., Columbia University, New York, N. Y., Dr. Pasteur Valéry-Radot, University of Paris, France, Arthur L. Bloomfield, M.D., Stanford University, San Francisco, Calif., Campbell P. Howard, M.D., McGill University, Montreal, Canada, W. McKim Marriott, M.D., Washington University, St. Louis, Mo., George Richards Minot, M.D., Harvard University, Boston, Mass., Charles C. Norris, M.D., University of Pennsylvania, Philadelphia, Pa.,

E. Rehn, M.D., University of Freiburg, Germany, Russell M. Wilder, M.D., The Mayo Foundation, Rochester, Minn. Volume 111. Forty-third series, 1933. Philadelphia, Montreal, London: J. B. Lippincott Company. 316 pages.

The various subjects offered in this volume cover a wider field than usual, although no individual subject is unnecessarily abbreviated. The volume first presents four papers on diseases of the parathyroid glands, detailing clearly the diagnoses and treatments indicated for each condition.

Proceeding on into the book the reader encounters valuable information in articles concerning "thyrotoxicosis masked by normal or subnormal basal metabolic rate," treatment for over and undernourished patients, "the mental aspect in etiology and treatment of pulmonary tuberculosis," the value of rest in pulmonary tuberculosis, "digitalis administration," some practical considerations in the treatment of diabetes mellitus, and a brief paper on "hydrogymnastics."

Among the considerations of less common diseases, the reader finds interesting and useful accounts of "agranulocytic angina and allied conditions," "infectious mononucleosis (glandular fever)," a resume of pellagra, and "clinical manifestations of rheumatic fever."

The case reports of two instances of jaundice compose the clinical pathology section. Both cases are interesting, and the proper diagnoses are reached with admirable finesse.

The surgeon's interest is sought by two well-presented subjects: "Spondylolisthesis," and "the management of acute head injuries." The volume is concluded by several papers on the "recent progress in ophthalmology and otolaryngology."

This volume maintains in every respect the standards of interest and value set by preceding volumes.

A. M. WOLFE.

William Beaumont (1785-1853). The Centenary of the Publication of His Contributions to Medicine, by Nollie Mumey, A.M., M.D., M.Sc. (Med.). Author of "An Iconographic Sketch of the Life of Rene Theophile Hyacinthe Laennec," etc. Denver: Privately Printed. 1933. 71 pages. Edition limited to one hundred copies.

This elegantly prepared volume has been produced in commemoration of the centenary of the publication of William Beaumont's work on the physiology of digestion. It is divided into three parts: Part I is given to the personal history of Dr. Beaumont. His early life, his days as school teacher and store keeper, medical apprenticeship and army career are briefly discussed. The last few pages of this section present pictures and descriptions of the monuments and plaques which have been erected in memory of his contributions to our knowledge of the physiology of digestion. Part II gives the history of Alexis St. Martin, his devastating gun-shot wound and the tireless and costly efforts of Dr. Beaumont to keep him, study human digestion through the permanent gastric fistula, record and publish his observations. Several full pages are devoted to cuts of the original sketches of the aperture and its value. Part III describes Dr. Beaumont's book. Again, full pages present the prospectus and title pages of the various editions, both English and German.

The book is concluded by a chronology of Beaumont's life. This handsome volume is a fitting memorial to the great pioneer in physiology. It is dedicated to Dr. Henry Sewall, "who has made scientific contributions to physiology."

PRELIMINARY PROGRAM

MIDWINTER POSTGRADUATE CLINICS

of the

COLORADO STATE MEDICAL SOCIETY

at DENVER

JANUARY 17, 18, 19, 1934

GENERAL INFORMATION

This three-day clinic series is directed by a special committee of the Colorado State Medical Society and is the second annual clinic session of its kind. The clinics are planned to feature practical information and modern methods, especially for the general practitioner. The clinics are conducted in Stock Show week, when special low railroad fares apply and there is ample entertainment available in Denver. All regular Doctors of Medicine are welcome, regardless of membership in the Medical Society. The facilities of three large hospitals will be used, Denver General, Denver Children's and Colorado General. Admission to all clinics will be by card only. Registration desks will be maintained at the hospital entrances; registration fee, \$1.00. Complimentary buffet luncheons will be served each day at the hospitals.

WEDNESDAY, JANUARY 17

All Wednesday Clinics at the
DENVER GENERAL HOSPITAL
West Sixth Avenue and Cherokee Street
(Amphitheater Clinics)

Harry S. Finney, M.D., Presiding

8:00 to 9:00 a. m. Fracture Clinics
Frank E. Rogers, M.D.

9:00 to 10:00 a. m. Cancer Clinics
Sanford Withers, M.D.; George R. Buck, M.D.

10:00 to 11:00 a. m. Medical Clinics
T. D. Cunningham, M.D.; Charles O. Giese, M.D.;
A. M. Gilbert, M.D.

11:00 to 12:00 noon Surgical Clinics
H. R. McKeen, M.D.; William Senger, M.D.;
George W. Bancroft, M.D.

12:00 noon Complimentary Buffet Luncheon
(Amphitheater Clinics)

George P. Lingenfelter, M.D., Presiding

1:00 to 2:00 p. m. Neurological Clinics
Edward Delehanly, M.D.; Philip Work, M.D.

2:00 to 3:00 p. m. Gynecological Clinics
William H. Halley, M.D.; Thomas A. Stoddard,
M.D.; C. B. Ingraham, M.D.

3:00 to 4:00 p. m. Obstetric Clinics
John R. Evans, M.D.; Edward L. Harvey, M.D.

4:00 to 5:00 p. m. Genito-Urinary Clinics
George M. Myers, M.D.; Harry Wear, M.D.;
John B. Davis, M.D.

AUTOPSIES

A series of autopsies will be performed by W. S. Dennis, M.D., coincident with part of the morning amphitheater program, details and time to be announced at the opening of the morning program.

THURSDAY, JANUARY 18

All Thursday Clinics at the
CHILDREN'S HOSPITAL
East Nineteenth Avenue and Downing Street
(Amphitheater Clinics)

8:00 to 9:00 a. m. Pediatric Clinics
George M. Blickensderfer, M.D., Presiding

9:00 to 10:00 a. m. Pediatric Clinics
Emanuel Friedman, M.D., Presiding

10:00 to 11:00 a. m. Pediatric Clinics
F. P. Gengenbach, M.D., Presiding

11:00 to 12:00 noon Pediatric Clinics
John W. Amesse, M.D., Presiding

(Names of clinicians, including members of the Pediatric Section of the Staff of the Children's Hospital and guests, and case descriptions will be available in the final program.)

12:00 noon Complimentary Buffet Luncheon
Robert G. Packard, M.D., Presiding

1:00 to 5:00 p. m. Orthopedic Clinics
By members of the Orthopedic Section of the Staff of the Children's Hospital. Names of clinicians and case descriptions will be available in the final program.

FRIDAY, JANUARY 19

All Friday Clinics at the
COLORADO GENERAL HOSPITAL
East Ninth Avenue and Ash Street
(Amphitheater Clinics)
C. F. Hegner, M.D., Presiding

8:00 to 11:00 a. m.—Surgical Clinics—
The Beck Method of Drilling Ununited Fractures E. F. Dean, M.D.
Treatment of Varicose Ulcers.....

..... John Andrew, M.D.
Compressed Fractures of the Spine Without Gross Neurological Symptoms in Industrial Surgery..... W. W. Haggart, M.D.
Presentation of a Case of Spinal Cord Tumor.....

..... J. M. Foster, Jr., M.D.
Title to Be Announced George B. Packard, M.D.

11:00 to 12:00 noon—Proctology Clinics—
Titles to be announced.....
..... A. H. Earley, M.D., and A. J. Chisholm, M.D.
(Out-Patient Department Clinics)

8:00 to 10:00 a. m.—Sections in Ophthalmology, Otolaryngology, Varicose Veins, and Dermatology. (Each Department Section Limited to eight persons.)

12:00 noon Complimentary Buffet Luncheon
(Amphitheater Clinics)

James J. Waring, M.D., Presiding

1:00 to 4:00 p. m.—Medical Clinics (20 minutes each)—

Cancer of the Thyroid..... R. W. Arndt, M.D.
Presentation of Cases of Heart Disease.....

..... Clough T. Burnett, M.D.
Hyperparathyroidism..... Thad P. Sears, M.D.
Differential Diagnosis, Cancer of the Lung.....

..... I. D. Bronfin, M.D.
Amebic Dysentery..... Louis S. Faust, M.D.
Rheumatoid Arthritis..... John G. Ryan, M.D.

Diagnosis Value of Liver Function Tests.....
..... W. B. Yegge, M.D.

Hormone Standards in Clinical Medicine.....
..... C. F. Kemper, M.D.

Medical Care in Peptic Ulcer.....
..... Royal H. Finney, M.D.

4:00 to 5:00 p. m.—Psychiatric Clinics—

Psychiatric Problems Frequently Encountered in General Practice.....
C. A. Rymer, M.D., and W. M. Peake, M.D.

Psychiatric Problems Encountered in a medical Out-Patient Clinic..... C. H. Barnacle, M.D.

FINAL PROGRAM

A final detailed program will be issued in pamphlet form a few days before the clinic series, and if completed in time, will be mailed to all members of the Society.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

Have You Answered Those Questions?

FOLLOWING is the major portion of a letter recently sent to each member of the Colorado State Medical Society. Accompanying the letter was a questionnaire and an application blank. If there is any member who has not complied with the requests and letter, he is here urgently requested to do so.

IS THE COLORADO STATE MEDICAL SOCIETY'S ANNUAL MEETING WORTH WHILE?

Your undersigned Committee recently asked this question of many state members. Answers indicated overwhelmingly that these sessions are valuable and necessary, for reasons like the following:

- A. The tremendous value of exchanging medical ideas and scientific argument.
- B. The value of increased acquaintanceship among Society members.
- C. Encouragement of original medical research and original medical thinking.
- D. Encouragement of a teaching attitude among members. To teach is to learn.
- E. Stimulation of members to summarize their medical experiences into organized form so that both essayists and listeners may benefit.
- F. To furnish experience for members of our State Society in presenting medical ideas so that our state can be worthily represented at national meetings.

If we grant that these meetings are worth while, you are urgently requested to devote sufficient time to the enclosed material to express your ideas on the questions propounded. Considerable material is presented in this one envelope because it is too expensive to issue follow-up letters. Therefore will you please consider carefully each enclosed item, and act upon it promptly?

It is the sincere wish of your Committee to give you what you most desire, and whatever you feel will best repay you for the time spent, at the next annual session. We have just one goal—to produce the best and most profitable meeting that the State Society has ever held. You can help, by conscientiously studying and filling out the enclosed forms, and by adding any other suggestions you may have. The Committeemen pledge that they will not spare themselves

either time or energetic endeavor to the end of a successful annual session.

We realize that there are several hundred members of the Society who seldom, if ever, attend an annual session. We want to know why. We want their criticisms of past programs, their desires for future programs. With your help, through the enclosed forms, we plan to build a program that will attract 90 per cent of the membership to the 1934 meeting, so that only unforeseen emergency will keep anyone away.

COMMITTEE ON SCIENTIFIC WORK.

Advisory Committee Meets With Regents

THE Advisory committee, in toto, along with Dr. N. A. Madler by invitation, met with the Board of Regents of the University of Colorado on November 17, 1933, for a general discussion of the problems relating to Colorado General Hospital and medical profession relationships. It is the Committee's pleasure to be allowed to publish the following statement by President Norlin, which, besides offering information of great interest, will by its tone serve as an example of the attitude of cooperation which it is hoped can be maintained between the Regents and this committee. Clear understanding of each other's purpose and difficulties can best be obtained by such conferences and it is expected that a number of future meetings of this kind for informal discussion will ensue.

November 20, 1933.

Dr. F. B. Stephenson,
Denver, Colorado.

My Dear Dr. Stephenson:

It is with pleasure that I convey in writing to you and the other members of the Advisory Committee to the School of Medicine, Dr. Webb (ex officio), Dr. Bouslog, Dr. Giese, Dr. Madler, Dr. Sidwell, Dr. Cunningham, and to Mr. Sethman, who works with the Committee, the cordial appreciation of the University of the good work you have done and of your helpful spirit as evidenced in the conference on Friday between your Committee and the Board of Regents.

We recognize that there exists a critical, here and there a hostile, attitude towards our Medical Institution on the part of practicing physicians in our State. This is due in part to errors in the administration of the hospitals, which are liable to occur in any institution conducted by human beings, but which we are disposed to eliminate so far as it is humanly possible to do so. It is due also in large part, as you in your report to the State Medical Society have pointed out, to practicing physicians themselves who cer-

tify patients for admission to the hospital who are not entitled to be there under the provisions of the law governing the institution.

It seems clear that by far most of the criticism which is now pointed at the institution is due to a lack of mutual understanding. And if your Committee can bring about a better understanding, as I am convinced you can, you will do a signal service both to our Medical Center and to the Medical profession in Colorado. The interests of our Medical Institution and of the practitioners of scientific medicine in Colorado are identical. The institution cannot, in my opinion, succeed without the active cooperation and support of the Colorado Medical Society, and conversely, if the institution fails for lack of support from those who should be its most loyal friends, its failure would be the failure of all who are concerned to keep the medical profession in Colorado on a high level.

Our interests are identical, but it is only by repeated contacts and conferences that we can share a common point of view. It is a very human tendency of physicians who are not associated with the institution to insist on a policy which were they themselves responsible for its administration, they would modify in the face of practical difficulties. For example, there is not theoretical objection to the recommendation of your Committee that the present law be changed so that only such patients can be admitted to the Colorado General Hospital as are absolutely indigent, that is, patients who can pay nothing whatsoever, provided the taxpayers of the State would be willing and able to bear the whole expense of operation. The Regents, however, have had to bear in mind that such an institution is expensive, that the people are groaning under the tax burden, and that the treasury of the State is definitely limited. We have, therefore, not been unmindful of the necessity of easing the tax burden. When the law was framed governing the hospital, we adopted the principle that the hospital should be for indigents, but we included among indigents those who could pay for "board and room" but could not afford to pay for medical or surgical service. We fixed the limit of pay at actual cost of hospitalization, that is, five dollars per day. However, we have already deferred to the views expressed by your Committee to the extent of reducing the maximum per diem rate to three dollars a day.

Our practical difficulties at this moment should be realized by the medical profession at large. The amount of money needed for the two hospitals was cut by the last General Assembly and by the Governor more than \$150,000. We have reduced staffs, salaries and wages to the point where any further reduction would devitalize the hospitals, and yet it is clear that even on the present basis these hospitals will be without funds for at least six months of the biennial period. Whether or not they shall be closed for that length of time, will depend in a large degree on whether or not the medical profession is disposed to come to the rescue of our Medical Institution in the most precarious crisis of its existence.

A second recommendation of your Committee is that greater care be exercised in the admission of patients through the use of exacting questionnaires to be filled out and signed by them. This recommendation has been put into effect, thanks to an appropriation by the State Medical Society to cover the cost of printing such admission blanks.

Another objection made by your Committee is against the employment of any publicity agent in connection with the institution. I may say that a part-time publicity man was employed by the Regents because they felt the necessity of bringing to the attention of the taxpayers of the State the services rendered to them by the School of Medicine and the hospitals connected with it. It now appears that the good accomplished in this way has been offset by the antagonism it has created, and this practice has been discontinued.

Another recommendation is that "full-time" members of the staff be not allowed to engage in private practice. I may point out that this is virtually the case now. The complaint is pointed at the Director of the Psychopathic Hospital. What is wise policy in this regard is open to further discussion and consideration. For the present let me point out that while it may plausibly be urged that a man in such a position should be paid an adequate salary to command his services and should then be precluded from supplementing this in any way, yet practically a state institution is limited in the amount of salary it can pay by the mental attitude of the average taxpayer. To pay in each case what a man could command in the open market would be to court the complaint of extravagance. This is a real difficulty, but I am hopeful that it can be worked out satisfactorily. Meantime, I would like to report the facts with regard to Dr. Ebaugh. He is expected to devote his time and energy to the hospital of which he is director, but he has been permitted to give other services which one in his position and of his competence is naturally called upon to render. He testifies as an expert in court cases, but it should be known that the fees for this service go, not into his pocket, but into the treasury of the Psychopathic Hospital. He is not allowed to engage in private practice in the ordinary sense of that term. He is permitted to engage in consulting practice only when called in for advice by a practicing physician and then only in a limited degree. It is understood that not more than two hours a week on the average may be devoted to this service.

In closing, permit me to say that the existence of such a Committee as yours, working in the spirit which you have already demonstrated, is a source of encouragement to the Board of Regents in a time of stress. I believe that out of the work which you have already done and of the further researches which you have undertaken to carry on will result a better understanding which will be beneficial to the medical profession in Colorado no less than to the Medical Institution of the University.

Faithfully yours,
(Signed) GEORGE NORLIN.

MEDICAL SOCIETIES

Lack of space in the December, 1933, issue, due to the unusual length of the transcribed proceedings of the Annual Session necessitated delay in the publication of several medical society reports. This explanation is due both to readers and to those who are diligently reporting the meetings of their respective societies since some of the reports here presented have been on hand in the office of Colorado Medicine for six weeks.

COLORADO OPHTHALMOLOGICAL SOCIETY

November 18, 1933

DR. FRANK SPENCER, PRESIDING

Dr. R. W. Danielson presented a case (1) of traumatic rupture of the choroid between the macula and disc, (2) a case of pseudo-retinoblastoma (?), and (3) a case of complete radial or meridional iridotomy in cataract extraction.

Dr. M. E. Marcove presented a case of implantation cyst of the anterior chamber following injury to the cornea.

Dr. F. R. Spencer presented a case of perforating injury of the cornea; iris prolapse; anterior synechia; conjunctival flaps.

Dr. G. H. Hopkins reported a case of severe dermatitis and conjunctivitis due to "lashlure."

GEORGE H. STINE,
Recorder.

* * *

BOULDER COUNTY

The Boulder County Medical Society met Thursday, November 9, at the Boulderado Hotel at Boulder. Dinner was served at 6:30, after which the scientific program was presented.

Reports were read from The International Medical Assembly Meeting by Dr. Warren Gilbert, The American College of Surgeons by Dr. H. H. Heuston, and "The Treatment of Cancer," as presented at the American College of Surgeons, was reported by Dr. H. A. Green.

Case reports were presented by Drs. H. A. Green and H. H. Heuston. Dr. Green presented a case of "Septic Kidney with Calculus Demonstrated by Specimen." Dr. Heuston presented a case of "Bone Tumors."

An Autopsy Report was read by Dr. J. D. Gilaspie, and a Health Report by H. L. Morency, City Health Officer.

Guest speakers from Denver provided a most interesting program for the regular meeting of the Society, held at the Boulderado Hotel, Boulder, on December 14. Dr. J. G. Ryan gave "A Review of Diagnosis and Treatment of Arthritis," and Dr. Atha Thomas spoke on "The Preventive and Corrective Treatment of Arthritic Deformities." This symposium provoked a general discussion by most of the members present. The meeting was preceded by a dinner.

M. L. JOHNSON,
Secretary.

* * *

CROWLEY COUNTY

Drs. W. M. Desmond and J. A. Hipp were the principal speakers at the November 8 meeting of the Crowley County Medical Society held at Dr. Desmond's office in Ordway. Dr. Desmond spoke on "Tetanus" and Dr. Hipp on "Epilepsy."

The regular meeting of the Crowley County Medical Society for December was held in Dr. Desmond's office at Ordway on December 14. Dr. G. M. Baker of Rocky Ford talked on Huntington's Disease, and Dr. W. A. Bartholomew of Manzanola spoke on Normal Digestion. Officers for the year 1934 were elected as follows: G. M. Baker, President; W. M. Desmond, Vice President; J. A. Hipp, Secretary-treasurer. Drs. Baker, Desmond, and Hipp were elected as the standing Committee on Medical Economics for the year.

J. A. HIPPI,
Secretary.

DENVER COUNTY

There were 151 members present at the second November meeting held in the Auditorium of the Capitol Life Building, November 21.

Drs. L. F. Lubeley, H. M. Black, and A. E. Bowers were elected to membership in the society.

Dr. O. S. Fowler reported for the Board of Censors that an application from the Tuberculosis Society had been considered, requesting permission for doctors to be allowed to make public addresses and radio talks in connection with the Tuberculosis Society campaign for the sale of Christmas seals. Dr. Fowler also requested an action on the part of the society on the proposal of allowing individual doctors to make addresses before lay groups. Motions were made and passed on both these questions, granting permission for the doctors to speak for the Tuberculosis Association and before lay organizations.

The scientific program consisted of a symposium on "Cancer of the Breast," presented by members of St. Luke's Hospital Staff. The symposium consisted of the following papers: Dr. William Haggart, Introduction; Dr. J. E. Struthers, Diagnosis; Dr. W. W. Williams, Pathology; Dr. Harry S. Finney, Surgical Treatment; Dr. W. W. Wasson, Irradiation Therapy.

The scientific program of the first December meeting was presented by the Denver Society of Internal Medicine. Dr. Harry Gauss presented "Interrelationship Between Gastrointestinal and Renal Disease," discussed by Drs. J. W. Davis, O. S. Fowler, A. W. Freshman, and Gauss, and Dr. Thad P. Sears presented "A Case of Hyperparathyroidism," discussed by Drs. Schmidt, Hegner, Fowler, and Sears. A scheduled paper by Dr. C. T. Burnett on "Cardiovascular Syphilis" had to be postponed on account of the late hour. Prior to the program, Dr. F. J. Maier reported for the State Society's Committee on Medical Economics concerning progress made in arranging cooperative measures with the Retail Credit men's Associations, a verbal report from the Board of Censors was received and discussed, with a motion passed to postpone final action, and minor business was transacted. Seventy-one members were present.

Drs. Helen E. Maytum and William Nelson were elected to membership at the December 19 meeting. The Board of Censors reported that charges have been preferred against a Denver physician by six other physicians, and that a final report and recommendation would be presented by the Board at the first January meeting. After other business was transacted the scientific program was presented, in two parts. Dr. P. W. Brown of the Mayo Clinic, guest speaker, gave a paper on "Amebic Dysentery," discussed by Drs. Ivan Hall, Amesse, Burrage, Murrage, Darley, Waggoner and Stiles. The second part of the program consisted of a symposium by the staff of the Colorado Psychopathic Hospital. Dr. F. G. Ebaugh spoke on "The Hysterical Reactions Common in General Practice," illustrating his talk with motion pictures, and Dr. William M. Peake presented "The Depressive Reactions Common in General Practice," showing a number of cases. A third paper of the symposium to have been given by Dr. C. A. Rymer was postponed because of the late hour. The meeting adjourned at 10:15, and refreshments were served. Members present at the meeting totaled 171.

O. S. PHILPOTT,
Secretary.

FREMONT COUNTY

Guest speakers have given the programs of the Fremont County Medical Society's last three regular meetings. On October 23 Dr. H. I. Barnard of Denver discussed "Low Back Disabilities, Including Differential Diagnosis and Treatment." This meeting was held in Florence.

At the November 27 meeting, held in Canon City's municipal building, Dr. J. S. Bouslog of Denver, Constitutional Secretary of the State Society, explained and discussed the new method of admitting patients to Colorado General Hospital, and Mr. H. T. Sethman, State Executive Secretary, talked on the current work of the Medical Economics Committee in regard to Federal Emergency Relief. Also at this meeting, Mr. A. A. Benham of the Petrolagar Company presented motion pictures on Movements of the Alimentary Tract, Appendectomy, Cholecystectomy, and Anatomy of the Abdominal Wall.

A State Society symposium team, representing the Committee on Cancer Education, gave the program of December 18, at Florence. Dr. George Bancroft of Colorado Springs presented the surgical features, Dr. Josephine Dunlop of Pueblo the clinical pathology, and Dr. George Unfug of Pueblo the radiological part of the symposium, under the general title of "Cancer of the Breast."

A. BEE,
Secretary.

LARIMER COUNTY

Dr. George R. Warner of Denver was the guest speaker at the regular meeting of the Larimer County Medical Society held Wednesday, November 1, at the College Cafeteria, Fort Collins. He gave an illustrated lecture.

This was a joint meeting with the Larimer County Dental Society.

DUANE HARTSHORN,
Secretary.

MESA COUNTY

"Epilepsy" was discussed by Dr. John E. Ford of Grand Junction at the regular meeting of the Mesa County Medical Society, held at the LaCourt Hotel in Grand Junction November 21. A dinner preceded the program, and following discussion of Dr. Ford's paper there was a general discussion of the federal regulations regarding emergency relief of the indigent, as presented in recent bulletins issued by the State Society.

H. M. TUPPER,
Secretary.

NORTHEAST COLORADO

The Northeast Colorado Medical Society held its regular monthly meeting at the City Hall in Sterling, November 9. The meeting was preceded by a dinner at Marshall's Cafeteria.

Drs. P. J. Connor and O. S. Fowler of Denver were guests of the Society. Dr. Connor spoke on "Glandular Therapy," and Dr. Fowler on "Fixation of the Kidney." Both lectures were illustrated with lantern slides.

The Society wishes to express appreciation to the visiting doctors for their interesting and instructive papers.

Drs. C. E. Cooper and Kemp G. Cooper of Denver were guest speakers at the regular December meeting of the Society, held in Sterling on December 14. The meeting was opened with a banquet at Marshall's Cafeteria at 6:00 p. m. Dr. C. E. Cooper gave a scholarly paper on the "Present Status of Medical Economics," and Dr. Kemp Cooper showed and discussed lantern slides on "Nasal Obstruction and Tumors of the Sinuses."

The Society plans to have one of the State Society cancer symposium teams as its guests at the annual meeting, to be held in January.

E. P. HUMMEL,
Secretary.

PUEBLO COUNTY

Members of the Otero County Medical Society on the staff of the Veterans Administration Hospital at Fort Lyon were guests at the December 5 meeting of the Society and presented the scientific program. Dr. R. P. Jones gave a paper on "Diagnosis and Treatment of Pulmonary Tuberculosis," Dr. B. S. Jackson presented "Laryngeal Tuberculosis," and Dr. F. C. Cassidy talked on "Tuberculous Enteritis."

At the second December meeting, held December 19, Dr. Carl W. Maynard gave the paper of the evening on "The Anemias of Pregnancy." Both meetings were held at the Congress Hotel.

J. L. ROSENBLOOM,
Secretary.

WELD COUNTY

Dr. Cyrus W. Anderson of Denver was the guest speaker at the regular November meeting of the Society, held in Greeley November 6. Dr. Anderson spoke on "Optional Motherhood," and his paper was well discussed.

A special meeting of the Society was held at the Greeley Hospital November 22, to discuss a vaccination and immunization program for the county and to set standard or minimum fees for these procedures. A resolution was adopted setting a minimum fee of \$1.00 for smallpox vaccination and a minimum fee of \$2.00 for diphtheria immunization.

Officers for 1934 were elected at the last regular meeting of the year, held in Greeley December 4. Dr. O. F. Broman of Greeley was elected president, Dr. H. W. Averill of Evans was chosen vice president, and Dr. J. A. Weaver, Jr., was elected secretary-treasurer. It was decided that delegates to the State Society would be elected at the January meeting.

TRACY D. PEPPERS,
Secretary.

Obituary**Frank R. Moore**

Dr. Frank R. Moore was born in Pastasala, Ohio, July 20, 1863. He graduated from Columbus Medical School of Columbus, Ohio, in 1885. He practiced medicine in Ohio for one year then moved to Kansas, where he practiced until 1888, when he came to Colorado. His first location in this state was in the Cripple Creek District. In 1893 he located in Florence and was in active practice until his death, a period of forty years.

Dr. Moore was a member of the Fremont County Medical Society, the Colorado State Medical Society and the American Medical Association. He had been president of his County Medical Society, county physician, coroner, city health officer and mayor of Florence. He had been a member of the Presbyterian Church all his life and always held his membership in the town of his birth.

Dr. Moore died suddenly November 27 of angina pectoris. His body was laid to rest in Fairmount Mausoleum, Denver. He is survived by his widow, Mrs. Marie Moore; one son, Morris J. Moore, and one daughter, Mrs. R. W. Johnston, both of Denver.

Colorado State Medical Society Officers, 1933-1934

President: Gerald B. Webb, Colorado Springs.

President-elect: N. A. Madler, Greeley.

Vice Presidents: First, Frank E. Rogers, Denver; Second, A. G. Taylor, Grand Junction; Third, C. E. Sidwell, Longmont; Fourth, Ward C. Fenton, Rocky Ford.

Constitutional Secretary: John S. Bouslog, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 537 Republic Building, Denver. Telephone, KEystone 0870.

Delegates to American Medical Association: Senior, John W. Ames, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs.

<i>Councillors:</i>		<i>Term Expires</i>
District No. 1	F. W. Lockwood, Fort Morgan	1936
District No. 2	Ella A. Mead, Greeley	1936
District No. 3	George P. Lingenfelter, Denver	1936
District No. 4	C. T. Knuckey, Lamar	1935
District No. 5	George D. Andrews, Walsenburg	1935
District No. 6	C. Rex Fuller, Salida	1935
District No. 7	A. L. Burnett, Durango	1934
District No. 8	Lee Bast, Delta	1934
District No. 9	W. W. Crook, Glenwood Springs, Chairman	1934

Standing Committees, 1933-1934

Credentials: John S. Bouslog, Denver, Chairman; Harold T. Low, Pueblo; John A. Sevier, Colorado Springs.

Scientific Work: Kenneth D. A. Allen, Denver, Chairman; Burgett Woodcock, Greeley; G. Burton Gilbert, Colorado Springs.

Arrangements: John B. Hartwell, Colorado Springs, Chairman; William A. Campbell, Jr., Colorado Springs; Carl S. Gydesen, Colorado Springs.

Public Policy: Charles O. Giese, Colorado Springs, Chairman; Walter W. King, Denver, Vice Chairman; H. R. McKeen, Denver; Gerrit Heusinkveld, Denver; Harvey W. Snyder, Denver; James J. Waring, Denver; Lanning E. Likes, Lamar; W. W. Harmer, Greeley; Charles H. Platz, Fort Collins; Gerald B. Webb, Colorado Springs, ex-officio; John S. Bouslog, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. S. Bluemel, Denver (1934); William H. Crisp, Denver (1935); C. F. Kemper, Denver (1936).

Medical Defense: T. D. Cunningham, Denver (1934), Chairman; Casper F. Hegner, Denver (1935); Frank B. Stephenson, Denver (1936).

Medical Education and Hospitals: J. A. Sevier, Colorado Springs, Chairman; Royal H. Finney, Pueblo; Thad P. Sears, Denver.

Library and Medical Literature: George A. Boyd, Colorado Springs, Chairman; E. D. Downing, Denver; F. W. Kenney, Denver.

Cooperation with Allied Professions: M. O. Shivers, Colorado Springs, Chairman; H. S. Finney, Denver; John R. Evans, Denver.

Medical Economics: Philip Hillkowitz, Denver, Chairman; Claude E. Cooper, Denver; F. Julian Maier, Denver.

Necrology: George M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; C. W. Streamer, Pueblo.

Special Committees, 1933-1934

Postgraduate Clinics: C. E. Harris, Woodmen, Chairman; Maurice H. Rees, Denver; Nolie Mumey, Denver; O. M. Gilbert, Boulder; Fred M. Heller, Pueblo.

Military Affairs: George P. Lingenfelter, Denver,

Chairman; John W. Ames, Denver; Robert M. Fulwider, Fort Lyon; Louis V. Sams, Denver; W. P. McCrossin, Colorado Springs.

Advisory to the School of Medicine: Frank B. Stephenson, Denver, Chairman; John S. Bouslog, Denver; T. D. Cunningham, Denver; C. E. Sidwell, Longmont; Charles O. Giese, Colorado Springs.

Cancer Education: Lyman W. Mason, Denver (1936), Chairman; Charles T. Ryder, Colorado Springs (1936); John B. Hartwell, Colorado Springs (1936); C. W. Maynard, Pueblo (1935); W. W. Wasson, Denver (1935); H. S. Finney, Denver (1935); William H. Halley, Denver (1934); K. D. A. Allen, Denver (1934); W. W. Haggart, Denver (1934).

Nursing Education: Frank E. Rogers, Denver, Chairman; H. A. Black, Pueblo; C. T. Knuckey, Lamar.

Cooperation with Board of Health: E. N. Chapman, Colorado Springs, Chairman; John W. Ames, Denver; Margaret Long, Denver.

Workmen's Compensation Affairs: Peter O. Hanford, Colorado Springs, Chairman; A. S. Cecchini, Denver; J. B. Farley, Pueblo.

Constituent Societies Meeting Dates; Secretaries

Arapahoe County—Last Monday of each month; secretary, W. C. Crysler, Littleton.

Boulder County—Second Thursday; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, C. Rex Fuller, Salida.

Crowley County—Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, O. S. Philpott, Denver.

El Paso County—Second Wednesday of each month; secretary, Carl S. Gydesen, Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, W. W. Evans, Glenwood Springs, Colo.

Huerfano County—Third Thursday of each month; secretary, G. M. Noonan, Walsenburg, Colo.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, W. L. McBride, Seibert.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, L. D. Dickey, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—Third Tuesday of each month; secretary, H. M. Tupper, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each month; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Friday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, R. J. Rummell, Lamar, Colo.

Pueblo County—First and Third Tuesday of each month; secretary, J. L. Rosenbloom, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, R. L. Downing, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Weld County—First Monday of each month; secretary, J. A. Weaver, Jr., Greeley, Colo.

WYOMING SECTION

President, F. L. Beck, Cheyenne

Vice President, J. L. Wicks, Evanston

President-elect, H. L. Harvey, Casper

Secretary, Earl Whedon, Sheridan

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne

J. H. Goodnough, Rock Springs

F. C. Shafer, Douglas

Medical Defense Committee: Earl Whedon, Sheridan R. H. Sanders, Rock Springs E. L. Jewell, Shoshoni

EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

The 1934 State Meeting

PLANS are under way for the Wyoming State Meeting and we hope to announce the place and time in our next issue.

The Yellowstone Park meeting has been abandoned for this year and Wyoming will have a state meeting in some central part of the state. An urgent invitation has been extended to the members of the Wyoming Society to attend the meeting of the Pacific Northwest Medical Association in Salt Lake and in view of this meeting Wyoming has decided not to hold the Yellowstone Park meeting this year. We want to play fair with our neighbors even if they do get cold feet at times. Elsewhere will be found a letter from Dr. E. M. Larson, Montana Counsellor on the subject.

Their meetings will be held in Salt Lake this year and we bespeak a good attendance from Wyoming as meetings of such character seldom are so near. As far as the Wyoming Society officially uniting with this organization, the House of Delegates will have to act on the invitation.

For our own meeting the program committee invites the members of the Wyoming Society to come forward with papers and suggestions for our next session. We especially wish papers on Rocky Mountain Spotted Fever and other tick diseases. We need all the information we can get on these subjects in the light of past experiences.

Dr. F. L. Beck, our President, is anxious that a fine Wyoming program be presented and it is up to all the men of Wyoming to make this our best meeting ever held. Will you do your part on the program?

Forty Degrees Below Zero

THERE is at least one town in Wyoming where the doctors ought to have their heads bumped against the wall. Like a lot of spoiled kids, they fight, make ugly faces at each other, and talk like fools.

The State Society ought to throw the whole bunch out. They are educated and capable in their professional services to the people they serve, but they want to fight. Let them get together and go at it like men or shut up and behave. To go around like a bunch of old gossips is a disgrace to the profession and if they don't see the light, and that right soon, they will all be out in the cold. They can then settle their own malpractice suits or go to jail.

Enough said!

E. W.

CORRESPONDENCE

AN INVITATION

Dr. Earl Whedon,
50 North Main Street,
Sheridan, Wyoming.

Dear Doctor Whedon:

I have been requested to write you as Secretary of the Wyoming State Medical Society to ascertain if your state association would be interested in attending the Pacific Northwest Medical Association meeting this year. It is to be held at Salt Lake City.

This association was organized some twelve years ago at Portland, Oregon, an outgrowth from the tri-state of Washington, Oregon, and Idaho. The new organization took in Montana, Utah, and three British provinces. At the meeting in Vancouver in July a committee was appointed to invite the states of Nevada, Colorado, and Wyoming to join the association.

Dr. E. F. Root of Salt Lake City writes me that he attended the Nevada meeting at Las Vegas and secured their enthusiastic support in joining the association. Our organization was

patterned after the tri-state in Mississippi Valley, which later became known as the interstate and is now known as the International Postgraduate Assembly. They met in Cleveland in October this year and I had the pleasure of attending that meeting and one of the guest speakers from London stated that he thought that was the greatest medical meeting that he had ever attended anywhere. Of course, their attendance permits them to put on a bigger program than we are able to do, but our programs have all been very good. The speakers are all from the outside—teachers of medicine.

I am enclosing a copy of the program of the meeting held at Vancouver this year. Now if you think the medical profession of your state would be interested I would be very glad to hear from you and give you further information.

In Montana when the Association met here we combined it with our state meeting. The state organization just held a short business session and for a program availed themselves of the Pacific Northwest Medical Association's speakers. That is the way the different states and provinces have done when the meeting was held in their respective localities.

E. M. LARSON,
Montana Counsellor.

WYOMING NEWS NOTES

NORTHWESTERN WYOMING MEDICAL SOCIETY MEETING

The regular meeting of the Northwest Wyoming Medical Society was held at Lovell, December 7.

The doctors and their wives were entertained at a banquet at the Green Cafe and the local ladies were hostesses to the visiting ladies at the theatre.

There was a good attendance at the business meeting. The following officers were elected for 1934: Dr. Kanable of Basin, President; Dr. Dacken of Cody, Vice President; Dr. Trueblood of Cody, Secretary-Treasurer. A committee was appointed to revise the fee schedule and report at the next meeting.

The following members presented papers: Dr. Evald Olson of Meeteetse, "Rifle Shot Wound Complicated with Myelitis;" Dr. Thomas Croft of Lovell, "Compound Fracture Complicated with Tetanus;" Dr. W. W. Horsley of Lovell, "Fracture of the Scapula."

APPOINTMENT TO THE BOARD

Dr. Emory W. DeKay of Laramie was this month appointed by Governor Leslie A. Miller to be the member of the State Board of Health to take the place made vacant by the death of Dr. John Hammond Nagle of Worland. The appointment was confirmed by the Wyoming Senate in Special Session at the time of appointment.

SHERIDAN COUNTY

The Sheridan County Medical Society and the staff of the Sheridan County Memorial Hospital were delightfully entertained by the staff of the U. S. Veterans Hospital No. 86 on Tuesday, December 12. A fine dinner was served at a very reasonable price.

Dr. Johnson read a carefully prepared paper on spinal anesthesia and Col. Soper, commanding

officer, secured and exhibited a four-reel moving picture illustrating the different approved methods of the technic of spinal anesthesia.

All of the Sheridan doctors were present except two who were at the time assisting the stork. A fine feeling of fellowship exists between the doctors at the Veterans Hospital and those of the city. The winter meetings ought to be most helpful this year with such close cooperation.

Obituary

John R. Nagle

Dr. Nagle passed away on October 31, 1933, after a brief illness which began as influenza but soon developed into pneumonia.

The doctor was graduated from the University of Nebraska Medical College in Omaha in June, 1927, and interned at the Bishop Clarkson Memorial Hospital in Omaha. From there he went to Watertown, So. Dakota, and became associated with the Bartron Clinic. In December, 1929, he came to Worland and associated with Dr. Paul S. Read. At the time of his death he was President of the Northwestern Wyoming Medical Society, a member of the State Board of Health, and County Coroner of Washakie County, also a reserve officer in the Medical Corps of the U. S. A., holding rank of First Lieutenant.

Dr. Nagle is survived by his wife, Kathleen, four sons, his father and mother, one brother and three sisters. He was buried at his old home in Rock Rapids, Iowa.

Mrs. Nagle and her family plan on remaining in Worland for the time being.

PAUL S. READ.

Elvin Franklin Schiedegger

Dr. Elvin Franklin Schiedegger was born in 1893 and died November 4, 1933. The doctor had lost considerable sleep and had been working for a week or ten days with a severe, deep-seated cold.

A post-mortem was done, the cause of death was given as sub-acute myocarditis (influenzal in origin).

Dr. Schiedegger was formerly of Fort Morgan, Colorado. He was a graduate of the University of Nebraska Medical School. He had practiced in Green River, Wyoming, for seven years as District Surgeon for the Union Pacific Railroad. Dr. Schiedegger held a commission as First Lieutenant, Medical Reserve Corps., U. S. Army. Services were held in Green River, Wyoming, conducted by the Masonic Lodge and American Legion. The medical profession of Sweetwater County acted as honorary pallbearers.

The Doctor was President of the Sweetwater County Medical Society and it was largely through his efforts that the recently formed Southwestern Wyoming Medical Association was brought about. His professional qualities were above reproach. His friendship with all his colleagues was genuine and kindly. His active interest in Southwestern Wyoming in all affairs medical will be greatly missed by the profession in this area.

Dr. Schiedegger's mother and father reside in Fort Morgan, Colorado. His wife and two children survive him. The body was shipped to Omaha for burial, where further services were held by the medical profession and fraternity brothers.

JAY G. WANNER.

BUILDING THE DOCTOR'S SURPLUS

May I digress from the trend of these articles, which has been to set forth basic principles upon which a doctor may build his surplus. Since there exists an apprehension as to the present and near future of economic conditions, certain facts that are before me may be of particular interest to you at this time.

These are facts—not opinions. They are world-wide—not local.

1. September steel output in England was 55% above September, 1932; Germany was 60% above, while in the United States steel production for the first nine months of 1933 was 30% above the entire year 1932 and 68% above the first nine months of 1932.

2. Industrial production in Japan during the first half of 1933 was 20% above the same period of 1932 and exports were up 55%.

3. Important world commodities at the end of October, 1933, were well above prevailing prices a year ago; wheat +67%, Corn +49%, cotton +59%, Copper +54%.

4. Automobile production in this country for the first 9 months of 1933 exceeded the entire year 1932 by 22%; or was 45% greater than the like period of 1932.

5. September freight car loadings, which measure the distribution of goods and commodities, were larger than at any time since the latter part of 1931 and over 10% above September a year ago.

6. Factory employment and payroll distributions in September were 23% and 37%, respectively, above September, 1932. Estimates by the American Federation of Labor showed that by October approximately 3,600,000 had been re-employed since last March.

7. Earnings have increased in most businesses. Reports of 89 industrial companies show aggregate earnings during the third quarter about 11 times the results over similar 1932 period.

8. Dividend payments have already shown the upward trend.

9. Security values are up. Stock prices are up over 110% above July, 1932, lows.

These are a few facts that show the improvement of basic economic conditions. True, there are many hurdles to be jumped; but the race has started and we are in the upward trend of a cycle of growing business.

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*Our New President,
Mr. Hanner,*

MR. GUY M. HANNER, the new President of the Colorado Hospital Association, was installed at the recent Annual Meeting of the Association held in Denver.

In addition to the important part he has taken for many years in the hospital work of the State, Mr. Hanner has been actively identified with national hospital and religious groups, as well as local civic and fraternal organizations. He is at the present time a Trustee of the Protestant Hospital Association and Executive Secretary of the National Methodist Hospitals and Homes Association. He is a Past President of the Colorado Springs Rotary Club, and is incoming Potentate of Al Kaly Shrine Temple.

Colorado Hospital Association Adopts Code of Ethics

THERE has been a long felt need for a Code of Ethics to govern the hospitals' practices in relation to each other, advertising, rights of patients, and public health programs. Due to the lack of any formulated set of rules for ethical practice, most hospitals have attempted to conscientiously govern themselves as they thought right. However, President Hanner of the Colorado Hospital Association recently appointed a committee to draw up a Code for the members of the Association. The committee submitted its report to the Trustees at a meeting held Thursday, December 28th. Later in the afternoon of the same day the Association met and approved the Code as presented to them by the Trustees.

The Code is effective at once, and is as follows:

CODE OF ETHICS OF THE COLORADO HOSPITAL ASSOCIATION

Because hospitals perform such a necessary and sacred service they have been held in the highest esteem by the general public. In dealing with each other they must remember the high regard in which the public holds them and must be extremely careful never to betray this trust. Since the relief of humanity is the hospitals' objective, no hospital should hesitate to aid another in accomplishing this high purpose, nor should any hospital willfully attempt to lower the standing of another hospital or its staff in the mind of the public, but rather each hospital should tender every possible aid to a sister institution when the need arises. No hospital should attempt to influence a member or members of the staff of another hospital to leave the hospital.

Every hospital should hold that it is unprofessional and unethical to solicit patronage for an institution through the medium of paid advertising in the press or in publicly distributed pamphlets, placards, or handbills. No hospital should print, publish or circulate or cause to be

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printed, published or circulated any advertisement, statement or notice which states or implies comparative costs, charges, or quality of service obtainable.

All hospitals shall exercise the greatest diligence in protecting their patients against unfavorable or undesirable publicity. Patients records shall be held confidential.

No hospital shall receive pay for any medical or surgical services rendered by a member of the medical profession unless such charges are comparable to those of other institutions, and in general accepted by the medical profession.

Any hospital whose Executive head is a member of this association if aggrieved at any action of another hospital, the management of which holds membership in this Association, may appear in person and must submit its grievance in writing to the Board of Trustees, who shall investigate and take such action in the matter as they, by majority vote, may decide.

All matters of public policy and all publicity programs, such as health lectures, clinics, etc., not covered by these rules, shall be governed by the Code of Ethics of the American Hospital Association and the American Medical Association. The Board of Trustees of the Colorado Hospital Association shall constitute a Board of Censors to rule on all controversies under this code.

At the same meeting a by-law amendment was approved, legalizing the Code and giving the Board of Trustees and members of the Association power to deal with violators of the Code of Ethics. The amendment follows:

ARTICLE VIII, BY-LAWS, AS AMENDED

A Code of Ethics as adopted by the Association shall be binding on all members of the Association and on the Hospitals represented by such members. The Board of Trustees of the Association, acting as a Board of Censors, are hereby empowered to review the charges and to dismiss such charges or to reprimand the offender. If the Board of Censors feels that the member should be expelled or suspended, a recommendation to that effect must be made by the Board to the next general or special meeting of the Association, who shall decide the matter by a majority vote of the members present.

It might be well also to refresh our memories at this time on the Code of Ethics of the American Hospital Association. It is as follows:

CODE OF ETHICS AMERICAN HOSPITAL ASSOCIATION

Publicity by clinics, hospitals, sanatoria, and other semi-public medical institutions as to quality of work done implies unusual and exceptional



WINGS... To Remove Contagion

* * * * *

In the Middle Ages the opinion prevailed that the air was stiff in times of plague. To set it in motion, in many homes, little birds were liberated in the sick room so they might absorb the poison and keep the air in motion.

But "keeping the air in motion" didn't remove the putrid pus odor. And it didn't attack the germs in infected mattresses and

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MINTO-SAN, the fragrant mint spray and antiseptic, is the master corrective medium for contaminated air and pathological and bacteriological disturbance.

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ability and efficiency on the part of their professional staffs, and therefore is advertising of the medical men concerned. This type of advertising distinctly savors of quackery and is unethical.

Publicity by any such institution, stating or implying that by reason of its exceptionally fine equipment and material resources it is able to, or does, give the public better medical service than similar institutions are able or willing to render, is advertising for purposes of self-aggrandizement. Statements of this type are frequently exaggerated and misleading and are detrimental to the best interests of the public, of the institutions concerned, and of true medical progress.

From time to time, hospitals, sanatoria, and other similar medical institutions must raise funds from an interested public for capital expenditure and maintenance. Furnishing the public with facts concerning such an institution, its work, its aims, and its ideals is legitimate and desirable. The public is interested in these facts and therefore is entitled to know them. Publicity dealing with these facts is ethical, provided, of course, that it refrains from any comparisons or superlative terms either direct or implied.

Publicity carried on by any one institution should be such as will be beneficial to all like institutions in the community. It should tend to develop public confidence in hospitals, sanatoria, and other medical institutions. It should be free from superlative or comparative statements and any implication of rate-cutting or unfair competition.

• • •

Care of Tuberculosis in the General Hospital

IT IS interesting to note comparisons and contrasts of sanatorium work with that done in our general hospitals. For many years tuberculosis was a rather narrow specialty, but during the past decade it has more and more invaded the field of general medicine. This change, which has been evolutionary, was not brought about by design. Owing to the urge for early diagnosis, many patients are being sent to our sanatoriums today who are not actually suffering from tuberculosis. In some institutions such cases run as high as 25 per cent. This has compelled sanatorium staffs to give more attention to general diagnosis in justice to all concerned.

In the field of treatment, one of the most radical changes is evidenced by the very

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great increase of surgical operations on tuberculous patients. This increase is notable not only for purely tuberculous conditions, but along general surgical lines. The present policy is dictated by a desire not only to help the patient recover from his tuberculosis, but to remove other handicaps such as infected tonsils, chronically inflamed appendices, and hernias. The essence of this policy is that the patient can more safely and economically undergo such treatment in a sanatorium than in a general hospital. The chief aim is to provide a prolonged period of convalescence.

Of very practical importance is the definite reduction in the number of tuberculous patients who are going west for treatment. The figures plainly show that Colorado has long since passed the peak in this regard. Without being too optimistic, we can look forward to a time when it will no longer be practical to maintain large institutions exclusively for the treatment of tuberculosis. We simply will not have sufficient cases to fill them. The alternative plan would suggest that the care of a reduced number of tuberculous patients be provided by general hospitals. If such a plan is adopted, we must avoid an easy-going policy regarding possible infection of student nurses. While it would appear to have been a slight hazard in Colorado up to this time, the risk undoubtedly would be greater if tuberculous patients are placed in charge of a younger group of nurses.

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EDITORIAL NOTES AND COMMENT

Move to Control Offensive Advertising of Certain Institutions

AN important action has recently occurred in a special session of our State Society's Board of Councillors. Whether the act is original in this state, we cannot say. However, its importance in the maintenance of the principles of medical ethics of the American Medical Association, which is the rule of conduct for members of this Society, is something of which we may be duly proud. To quote from Chapter XIV of our By-Laws: "In the event of unethical conduct on the part of any group, clinic, or hospital staff the members thereof shall each be held culpable therefor and summary action shall be required of constituent societies to punish such breaches of medical ethics on the parts of groups, clinics, or hospital staffs."

Certain institutions in Colorado have advertised in newspapers, with pamphlets, and through direct mail. Though many physicians have disapproved, nothing has heretofore been done about it. Complaint against one sanatorium, in particular, was finally filed, not from the county embracing that institution, but from another county society. Our Committee on Medical Economics studied the complaint that they might make recommendations to the Councillors, within whose official jurisdiction such problems fall. For obvious reasons, the Committee on Public Policy was drawn into the discussion. These two committees, in joint session, appointed a sub-committee to present their recommendations to the Board of Councillors. The latter body issued a formal state-

ment to the effect that such advertising was not within the spirit of the Code of Ethics of our Society, but since our members had not been definitely instructed regarding the ethical limits of institutional advertising, discipline was not at that time indicated. Also, our Society cannot maintain direct control over hospitals and sanatoria—which is part of the work of the Hospital Association—but the Society can exercise a powerful indirect control by excluding from its membership those doctors who patronize the guilty institutions.

Such a resolution was adopted by our Board of Councillors. The exact wording is reproduced here so that all members of the Society may be officially notified as planned by the Council. The resolution follows:

BE IT RESOLVED BY THE BOARD OF COUN- CILLORS OF THE COLORADO STATE MEDI- CAL SOCIETY:

That advertising to or solicitation of the laity, by any group, clinic, hospital, sanatorium or related institution; or by any corporation, association, society or other organization, educational, religious or otherwise, engaged in the care of the sick, except as authorized by the Council of this Society or the Board of Censors of the interested Constituent Society, shall hereafter be construed as equivalent to advertising and solicitation by the physicians employed by or associated in any professional capacity with the offending institution, and shall subject such physicians to discipline under the provisions of Chapter XIV of the By-Laws of this Society for breach of the Code of Ethics.

BE IT FURTHER RESOLVED:

That this Resolution shall take effect and be in force from and after its publication in the February, 1934, issue of Colorado Medicine.

A pertinent fact was mentioned informally in session of the Board—that if the Michigan Society would adopt and enforce a similar resolution, the offensive advertising of that State's notorious sanatorium could be stopped.

The Colorado Hospital Association, taking cognizance of the situation, set up a Code of Ethics of its own, which in many ways is as strict as our Council's ruling, and should play an important part in stopping objectionable advertising by hospitals and sanatoria. This hospital code was published in last month's issue of Colorado Medicine.

This activity is a vital test of the disciplinary powers of our central organizations. Its success or failure will largely determine the future conformity of outlaw institutions to ethical standards. Since Colorado's reputation is nation-wide, the quality of its institutions must be unimpaired.



Midwinter Postgraduate Clinics Successful

OUR second annual postgraduate clinics may be reviewed as signally successful from every angle. Attendance was splendid. Total registration was 243, of which 54 were clinicians participating in the program. The increased popularity of the session is indicated by comparing these figures with those of last year. In 1933 the registration was 163, of which 48 were participants in the program. We were gratified by the percentage of men from out of town; of the 110 visitors, 102 were from Colorado communities except Denver; one was from New Mexico, one from Kansas, and six from Wyoming.

Colorado men are always glad to welcome our good friends from Wyoming. We hope opportunity was afforded for partly repaying their hospitality to the many men from this state who have attended Wyoming's annual meetings. One man from the north was particularly in the limelight. The readers of Colorado Medicine have learned to enjoy the spicy Wyoming editorials. To many, their source has been just "E. W.." The genial Whedon is more than a pair of

initials. He's the personification of straight shooting, square dealing, and good stories—all western. Former Wyoming men, old companions and new friends united in greeting Earl Whedon, the whence and wherefore of the "punch" in Wyoming's columns in this journal.

The three major hospitals accommodating the clinics have earned our gratitude. Clinical material was unstinted; buffet luncheons were consumed with gusto and provided opportunity for recesses and delectable fellowship. Clinicians had command of their subjects and had spared no effort to present the most advanced scientific data briefly and practically. Favorable comment was evident on every hand.

The postgraduate clinic movement throughout the medical world is a necessary consequence of progress. The activity will increase and its impulse be felt in better medical service in all communities.



Misrepresentation

THE public is inclined to believe what it sees in print. This, unfortunately, is the cause of its being swindled of untold millions annually. More unfortunate is the fact that it occurs preeminently in the field of human ailments and public health—both of which our profession could control if it would. Speaking of untold millions, one is inclined to wonder what our traditional reticence costs one hundred thousand doctors annually.

In this State such public servants as barbers, cosmetologists, and food handlers are supposed to have a clean bill of health. They hold a card signed annually by doctors of medicine who state that they are free from tuberculosis, venereal, or other communicable disease. Many shops prominently display a card stating that their employees have conformed with the "sanitary code" and are safe as public servants. And the public believes it!

Tragic also is the fact that doctors of medicine have placed their names on the vehicles of this misrepresentation. Those "certificates" are not only meaningless but are public liabilities. We have known that

for at least two years barber and beauty shops have been visited by an unscrupulous doctor who signs the slips for fifty cents each and without any examination. Food handlers have gotten a certificate designating a clean bill of health for seventy-five cents apiece. The latter were obtained from a physician belonging to organized medicine.

Needless to say, many such certificates signed by reputable and usually careful physicians did not include any genital examination or inspection, any specific blood test, or thorough chest examination, and certainly no stool examination in the food handlers. These procedures are indispensable to successful conclusion of the legitimate purpose for which such activity should be carried on. The plan is obviously supervised by laymen who are either ignorant of scientific facts or are disregarding public health for personal gain. Physicians who have subscribed to the misrepresentation are guilty of an act unbecoming to their profession.

Granting that there are insufficient funds at present available to do this work as it should be done, why do it at all? It deceives the public, gives them a false sense of security, and makes fools of organizations and individuals whose names appear on meaningless placards!



Possible Dangers of Quinine in Labor

STUDIES in recent years indicate that the action of quinine on the parturient uterus has been greatly over-stressed. Careful observers have noted no effect unless labor pains have started, only slight increase in the force of contractions but no appreciable effect on the course of labor, and occasionally more frequent but less effective contractions. The late J. W. Williams of Johns Hopkins stated that attempts to induce labor with quinine and castor oil were very uncertain, unless supplemented by solution of pituitary. De Lee declares that quinine should seldom be used in uterine cramps as it often induces premature expulsion of meconium and causes post-partum oozing.

He uses one three grain dose only, of quinine, together with the other measures. It is interesting that pregnant women take therapeutic doses of quinine with impunity in malarial districts.

More important than the above observations are those which indicate a danger to the fetus from quinine administration. Dilling and Gemmell noted meconium in the amniotic fluid of 34.6 per cent of mothers who had been given quinine, as compared with 8 per cent in the parturient women who had not taken it. Such findings were attributed to relaxation of the fetal sphincter or to intra-uterine asphyxia. They conclude that quinine in concentration of 1 to 100,000 or more in maternal or fetal blood is not without danger to the fetus and that such danger may obtain for hours after quinine administration, due to slow excretion. Recent literature has reported many cases of fetal death wherein careful history, observation, and autopsy data seem to rule out all other etiological factors.

It appears that the importance of quinine in the induction of labor has been over-estimated, either alone or in combination with other measures. When equally good results follow procedures excluding its use, the child should not be subjected to an additional peril.

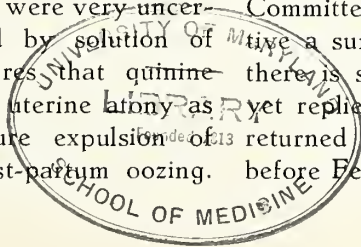


Thank You!

THE enthusiastic response of the members of the Society who promptly filled out and returned their questionnaires with criticisms and suggestions concerning the Annual Session is deeply appreciated by the Committee on Scientific Work. The Committee has obtained many valuable ideas from these returned questionnaires and will incorporate many new thoughts gained from them in the next program.

It is hoped that the next issue of Colorado Medicine may carry some of the interesting compilations of questionnaire results. The Committee wishes this to be as representative a summation of ideas as possible, and there is still time for those who have not yet replied to do so. If you have not yet returned your questionnaire, please do so before February 15.

K. D. A. A.



Alcohol Not Efficient As Sterilizing Medium

A POPULAR fallacy is that of allowing alcohol, as a sterilizing agent, to satisfy one's "aseptic conscience." A few months ago it was found that all cultures from freshly prepared sterilizing solutions in a large Boston Hospital yielded spore-bearing bacilli, many of which were Welch bacilli. Exposure of cultures of this bacillus to 70 per cent alcohol for one hour failed to kill the organisms. Eleven strains of streptococci on agar were not sterilized after complete submergence in 95 per cent alcohol and in undiluted acetone.

The National Institute of Health recommends acetone as the agent of choice for skin sterilization in smallpox vaccination. Being completely volatile, it is not destructive to the virus.

CORRESPONDENCE

To the Editor of Colorado Medicine:

The December issue of Colorado Medicine included an article entitled "The Denver Sewage Problem," by Ivan C. Hall, head of the department of Bacteriology and Public Health of the University of Colorado School of Medicine and Hospitals. Some of the statements by Dr. Hall in this article have been widely and effectively quoted by those who have opposed a sewage disposal plant for Denver. This is most unfortunate since several of these statements are not true. However, due to the author's position as head of the Department of Public Health of the Colorado School of Medicine, they have carried great weight. Lest further damage be done as a result of this article, I feel that these statements should be corrected.

Dr. Hall states, "We feel however, that undue emphasis is being placed on the danger to the residents of Denver through eating of vegetables raised in the bottoms of the Platte River. Surely if this were a major condition there would be many more cases of intestinal disease in Denver than are at

present recorded." Dr. Hall should know that each year at the time the bulk of sewage-raised vegetables come upon the Denver market that there is an epidemic of diarrhea throughout the city. What is the cause of this epidemic? Personal experience and correspondence with health officials in eastern cities indicate that these epidemics, once common there also, are things of the past coincident with the institution of methods for safeguarding food and water supplies, chief among which has been proper sewage disposal.

Dr. Hall also states that "The data recently published by the Colorado State Board of Health clearly prove the efficacy of washing to remove B. Coli from carrots, beets and celery." I am amazed at this statement, for if there is one thing that these data prove clearly it is that washing cannot be depended upon to make vegetables fit for human consumption. In some instances washing vegetables freed them of colon bacilli. In others these same vegetables, celery for example, were found to have a B. Coli index as high as 10,000 even after washing. How is one to know therefore, without microscopic analysis (which obviously is impossible) whether his washed celery is fit to eat or not? Furthermore, with contaminated vegetables coming into the house there is an excellent chance to transfer pathogenic bacteria, if present, to other articles of food.

The Committee on Public Health of the Colorado State Medical Society feels strongly* that there is a close connection between sewage contamination of irrigation water and the high death rates in certain parts of this state from the filth diseases—typhoid fever, diarrhea and enteritis. I deeply regret that the head of the Department of Public Health of the University of Colorado School of Medicine does not see eye to eye with us in this matter, for we need and should welcome his cooperation.

EDWARD N. CHAPMAN, *Chairman,*
Committee on Public Health, Colorado State Medical Society.

*The Menace to Life and Health from Improper Sewage Disposal in Colorado, E. N. Chapman, Colorado Medicine, January, 1934.

ANATOMICAL AND FUNCTIONAL DAMAGE TO THE ADRENAL GLANDS IN GENERAL VISCEROPTOSIS— ESPECIALLY IN RENOPTOSIS*

O. S. FOWLER, M.D.
DENVER

For twenty-three years we have been using a particular method of nephro-colopexy, which was a modification of Longyears' "Nephro-colopexy," published in 1910 by Mosby & Co. I now know that we were doing more than a nephro-colopexy—that it was an "adreno-nephro-colopexy." Early in those years it was obvious that we were getting certain beneficial results which could not be attributed to the renal and colon improvement alone. We soon learned that these results could be expected and could be confidently predicted to the patient, although I had no satisfactory explanation other than the improved renal and intestinal function.

Some time ago Dr. A. D. Catterson of Denver called my attention to the possibility that in the operation we might be doing something beneficial to the adrenal glands. This was a very intriguing thought, for it was not known that the adrenal glands were involved in the pathology of renoptosis and general visceroptosis. Upon consulting the literature nothing confirmatory was found. The matter was mentioned negatively by a few anatomists to the effect that "the adrenals are not involved in renoptosis as they do not follow the kidney in this condition."

I determined to make a study of this possibility and, through the courtesy of the State Medical School, was permitted to study this feature in seventy-five autopsies, for which courtesy we are deeply indebted and grateful. This paper is the result of this study and the facts deduced appear to offer a complete explanation of the great variety of beneficial results above mentioned in my experience with correction of renoptosis. Further, it also appears to open the

way for a clarification of certain other diseases not previously known to be associated with disturbances of adrenal function. Therefore, this paper is a report of this autopsy study and our clinical experience for the past twenty-three years with nephropexy.

General visceroptosis is probably the most common human pathology, in fact it may be that the accepted normal relationships of the abdominal organs may actually be pathological. We have been misled in the fact that anatomy has been written and taught on the cadaver that died in, and whose tissues were fixed in, the supine position. Of recent years we have been learning an upright living anatomy, mainly from the radiologists, which is much more practical. However, this study will show that it is possible for a small percentage of people to maintain the position of their abdominal organs with which they were born. We feel that this should be accepted as the normal and any particular variation from this should be regarded as pathological.

It is our belief that all types of nephropexy other than Longyears' and our own do not accomplish their purpose of renal fixation in any considerable percentage; in fact, they may do actual damage to the colon and adrenal glands. This is the real reason why nephropexy has been condemned more than twenty-five years ago, and it should have been.

Renoptosis is produced by general visceroptosis. Renoptosis then causes adrenoptosis, which results in atrophy or possibly sclerosis of the adrenal glands from the pull upon the adrenal vessels. This induces an irritation of the adrenal sympathetic and autonomic nerves. The combined result is an insufficient adrenal function, hypoadrenia, which may be independent of histological change in the gland and be wholly from nerve and vessel irritation and reduced blood supply. All this produces a further

*Read before the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs, September 16, 1933.

Due to limited space in this publication, the author's operative technic for the procedure is not included. However, his reprints, available to those desiring them, will give operative technic in detail.

loss of intestinal tonus which again increases the visceroptosis. Thus a vicious circle is established which constantly becomes more pronounced, and the patient becomes a neurasthenic with all the numerous manifestations of an unstable constitution.

It is most surprising that we should find an unrecognized pathology in the human abdomen at this time, but until this suggestion damage to the adrenals in visceroptosis was unknown. We regard this damage to either the structure or function of the adrenals as the most serious phase of pathology of any structure included in general visceroptosis, in fact perhaps the most damaging of any structure in the body that is concerned in maintaining the general health.

The adrenal glands constitute a tissue upon which life absolutely depends. They basically control our health, metabolism, utilization of vitamins, blood pressure, neural and mental balance, voluntary and in-

voluntary muscular activity. They hold apparently complete control over the continuing balance of the internal glandular system. Fertilization of the ovum, the development of the fetus, the standard of our health and the length of life are tied up tightly within these two almost unknown structures.

We feel that we have made here one of the most important suggestions that has been made to the profession in many years; in fact, one of my colleagues stated that he believed it was revolutionary. The happiest feature of it is that its application is so simple and easy; it is an operation that has practically no danger. It is an anatomical operation comparable to that of herniotomy in its beauty.

Abdominal surgery has quite woefully failed in its efforts to correct the damage of visceroptosis, except that of the cecum and ascending colon. However, I have found in hundreds of cases that after adren-nephro-colopexy the patients were relieved of the distressing symptoms of visceroptosis, so that surgery directly upon the abdominal organs was quite unnecessary. Apparently this result is obtained by relieving the stasis of the cecum and the restoration of improved tonus to the involuntary muscles of the intestinal tract. This applies equally well in those cases having the most serious stomach and intestinal symptoms.

Unfortunately, the anatomy of the vascular and nerve supply of the adrenal glands is ideally arranged for damage to be accomplished by the ptosis of the colon and kidneys. Its superior artery arises from the subphrenic directly above, the inferior comes directly upward from the renal close to the kidney, and the middle directly from the aorta. Its nerves are a rather vast web-like arrangement, so all these can be readily and easily disturbed in renoptosis, since the adrenal is contained within the network of the supporting fibers of the kidney, the adreno-nephro-colic ligament.

Practically all the abdominal organs are involved in visceroptosis, which is a disease complex of the human animal only. The kidneys ptose with the abdominal organs and permit the partial obstruction of the ureters

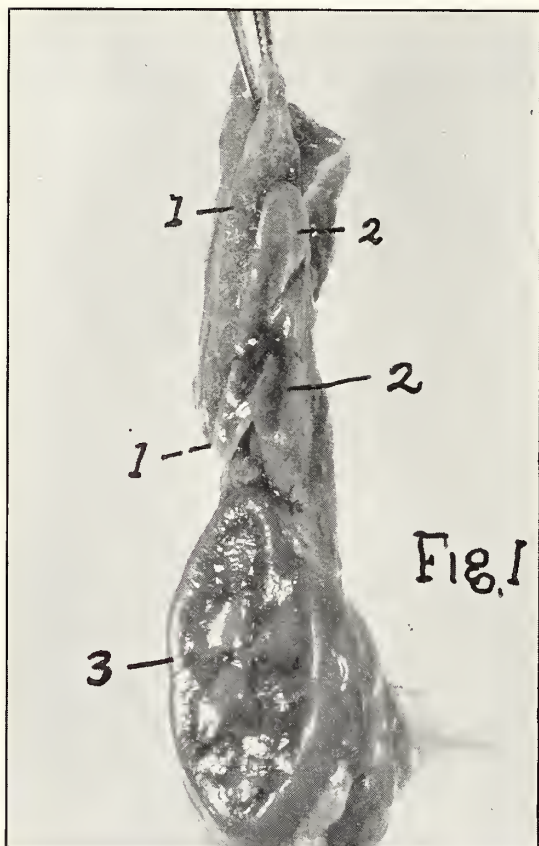


Fig. 1. New born babe; 1, section of diaphragm to which perirenal capsule is attached; 2, adrenal gland at birth; 3, lobulated kidney.

by kinking; also the renal vessels are pulled upon, which surely interferes more or less with its blood supply and function. At the same time and by the same forces the adrenals, their vessels and nerves, are also pulled upon and displaced; the nerves are irritated and vessels are narrowed when patient is upright. Altogether this induces a renal and adrenal functional insufficiency sufficient to affect the mental and neural tonus, heart rate, heart and vascular tonus, blood pressure, blood making organs (as shown by the constantly associated anemia), muscular and skeletal tonus (as shown in the spinal curvatures of children), and the muscular tonus of the entire intestinal tract. The biochemistry of the metabolism of the entire body is seriously interfered with by this unbalance of the internal glandular system. Ptosis of the cecum and transverse colon with atony and dilation of the cecum and ascending colon with the production of constipation are the main factors along with constant dehydration, which seems to be a human habit, are very active factors in the production of hypertension and mental apathy with resulting disturbances in the processes of body chemistry.

Renoptosis is a much more common affection in adults than has been previously estimated by external palpation. In my study the adults had more than two inches of ptosis and as much as five inches in some of them. These ptoses are often seen without undue obstruction of the ureter; however, it is our belief from this study and from our experience in these cases, that such an amount of ptosis cannot occur without doing more or less damage to the adrenal glands. In fact, the adrenal glands appear to be the greatest sufferers in this whole problem of visceroptosis, since all these cases show degrees of hypoadrenalism. We therefore cannot longer regard renoptosis in the light of renal pathology alone, but must now consider it in the light of disturbed adrenal function with its many constitutional manifestations. Renoptosis with ureteral obstruction is the cause of recurring attacks of pain, causing urinary stasis, pyelitis, pyelonephritis, hydronephrosis, pyohydronephrosis, hydro-

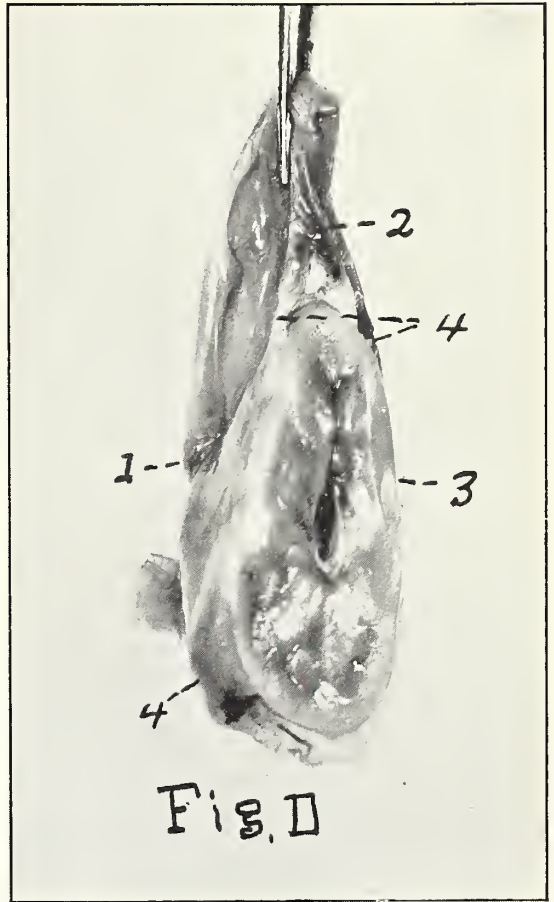


Fig. 2. Eight week old babe, died from erysipelas, meningitis, and peritonitis; adrenal badly damaged from these severe infections. Note position (normal) of adrenal and one-fourth of kidney above the lower edge of diaphragm. Note ante-mortem autolysis of adrenal. Severe illness for several weeks caused this damaging autolysis. 1, lower edge of diaphragm; 2, shrunken autolyzed adrenal gland; adrenal looks like that of old person; 3, infected kidney; 4, peri-renal capsule.

ureter. It may be the precipitating factor in renal tuberculosis, multiple abscess, calculus formation, often acute nephritis, nearly always chronic nephritis, arteriosclerosis, hypertension, asthma and certain allergies. All allergies that are relieved or benefited by adrenal administration are certainly the result of adrenal insufficiency.

Adrenal gland pathology in general visceroptosis may be divided into demonstrable histological changes and secondly into functional disturbances which may or may not be accompanied by histological evidence—which functional changes must be interpreted by the clinical symptoms of the pa-

tient. It must not be regarded that such clinical interpretation is inaccurate, for you can soon become fully as accurate as the experimenter in the laboratory who must also use the same sort of observations. In the laboratory, you too may use various apparatus, such as the ergometer for testing muscularity and physical effort.

Ptois of the adrenal glands is produced by ptois of the kidney. Renoptosis is produced mainly by weight of the cecum and also by the weight of the kidney and by its constant pulling in the upright position and by the jarring of walking and other jolting in riding and in sports. Athletes are especially liable; a cowboy gave me my first hint of this pathology from his renal damage. These ptoises are accomplished together

er by the fact of their common support, the adreno-nephro-colic ligament, a term introduced by us a year and a half ago. The effect of this pull upon the adrenal gland is evidenced by certain deformities of the gland, which is thinned out, especially in the antero-posterior diameter. It may be turned crosswise and even upside down, as two of our specimens have shown. Its supporting fibers have been lengthened, and its blood vessels have also been stretched out so that their calibre when patient is standing is undoubtedly much less than when the same patient is lying, and their autonomic and sympathetic nerves are traumatized in the same manner. This is why the adrenal function is so much improved by keeping these patients in bed for days. It is a therapeutic test of the ability of the adrenals to recover when the supine position restores them to their best position. We have used this test for years on hundreds of renoptotic cases; you, by this method, may know before operation whether you can assure the patient of the success of the proposed operation. It is a positive test whether an Addison case is tuberculous or functional; if functional, you may be sure that the above operation will give permanent relief. In these severe cases it is necessary to try it for about two weeks or possibly more. Further, this is the secret of the numerous rest cures for various conditions, especially in the recovery from acute severe infections such as pneumonia and influenza. We call particular attention to these rest cures in stomach and intestinal disturbances, used for many years in our profession.

In this ptois the adrenals may undergo atrophy or hypoplasia or actual sclerosis, as has been described in non-tuberculous Addison's disease. At the same time we have much evidence that the gland does not have to undergo sclerosis in order to have what appears to be incurable damage in function. You should not be pessimistic about its recovery when you apply the above therapeutic test with good results. The restoration from an operation will be in proportion to the degree of sclerotic damage to the adrenals. It is our belief that sclerosis is

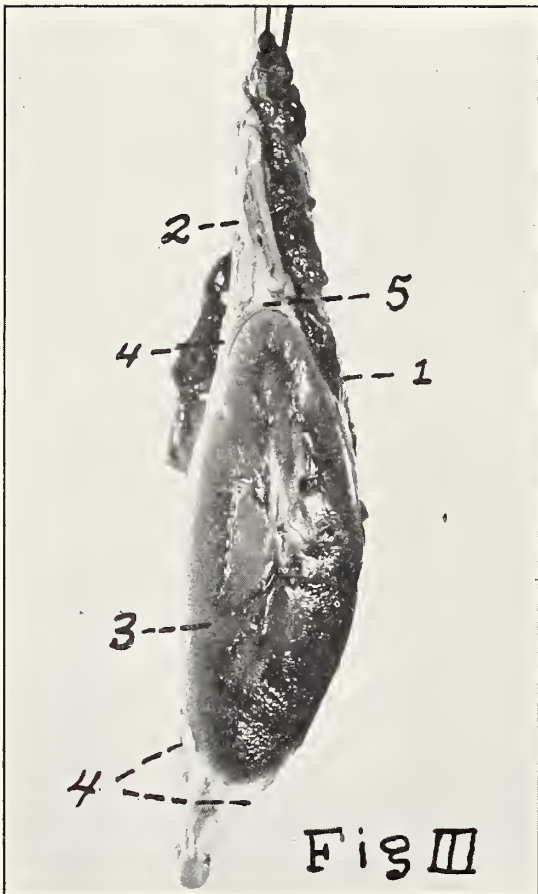


Fig. 3. Eight year old child dying from acute appendicitis. Note normal adrenal for child, compare with that of Fig. 2. 1, lower edge of diaphragm (note adrenal and upper fourth of kidney above this point); 2, normal adrenal gland; 3, kidney; 4, peri-renal capsule; 5, attachments between adrenal and kidney.

relatively unusual, and that the usual condition is one of functional disturbance to the vessels and nerves. Every case shows marked improvement and permanent complete cure is the expected result.

Our study of seventy-five autopsies shows that the ptosis of the adrenal gland is from one-fourth to one-half the ptosis of the kidney. There were other observable gross lesions observed which appeared dependent upon the type of illness, its length, and the severity of the symptoms. In fact, one may look at the specimen and tell much about the individual the specimen came from, for example the age of the patient. Oddly we have been often mistaken between that of a child or an extremely old person. The disease or disease process may be shown in the amount of autolysis of the gland. Urinary tract obstructions and virulent infections especially show this autolysis which is undoubtedly a pre-mortem change. (This is a point in which there has been disagreement between pathologists—whether these autolyses were pre-mortem or post-mortem.) The condition has appeared too often in this series of cases to be accounted for by the lapse of time before autopsy, and furthermore other similar tissues, e. g., the brain, do not always show the same autolysis; therefore it must be a pre-mortem change. In three children eight weeks of age who had each had terrific acute infections, the adrenals had the gross appearance of an aged person.

Hypoadrenalism and hypocortinism is the result of a diminished blood supply to the glands and to the irritation of its delicate nerve mechanism from the drag of the kidney and colon. The evidence of this can only be shown by the degree of Addisonism in fatigue, asthenia, pigmentation, et cetera. This hypocortinism produces various phases of myasthenia, asthenia, neurasthenia, hypotension, nervous prostration, hyperthyroidism, various phases of psychoses, slowness of recuperation from mental and physical fatigue, with marked liability to infections and a slowness of recovery from any illness. The vascular evidence is hypotension unless the renal lesion symptoms submerge those

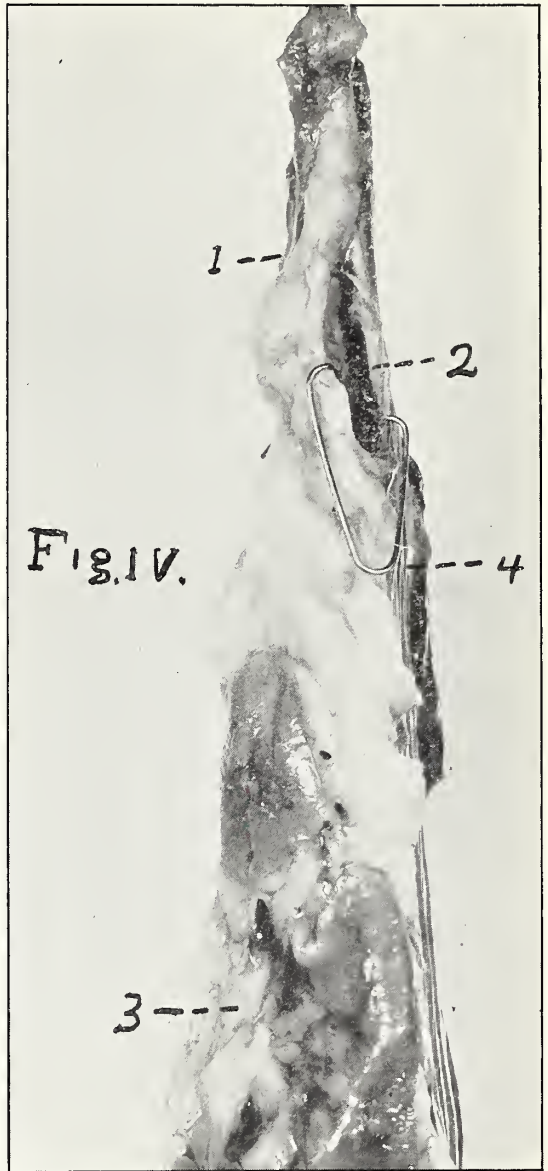


Fig. 4. 1, lower edge of diaphragm; male, aged 67; prostatic obstruction was cause of death, with severe urinary infection; 2, adrenal gland ptosed one and one-half inches (note autolysis leaving only a shell); this ante-mortem autolysis was found in eight of our seventy-five cases; 3, badly damaged kidney; 4, peri-renal capsule.

of hypoadrenalism, in which case the same patient may show hypertension in the presence of symptoms of Addison's disease.

If a toxic goiter is present with either hyper- or hypotension, adrenalectomy will almost surely relieve it, and if a thyroidectomy has previously been done without relief of the hyperthyroidism, the same operation will just as surely even now relieve these symp-

toms. We have had many cases illustrating these two conditions. However, we believe that adrenalectomy should be done before thyroidectomy instead of after, as was suggested last year by one of our members. We believe the thyroid gland is a useful organ

and should not be removed without positive reasons.

In our opinion hyperadrenalism is not probable and likely impossible, most certainly impossible of any demonstration. Its presence has been wholly an assumption in certain cases of adrenal tumors. Certain sex reversion symptoms are often present. Even if these symptoms are more or less relieved by removal of the adrenal tumor, this may show simply an unbalance between various internal glands or the introduction of toxic substances of which we have no definite knowledge today. If a statement of supposed fact were originally incorrect, its repetition by a hundred authors does not make it true.

The upper limit of normal function of the adrenal gland is its highest function, yet there does appear to be a storage ability in the system, so that we may have a reserve to call upon in stress. Adrenalectomized animals maintain apparently normal function for a period after removal, and a dose of cortin may maintain an Addison case for a week or more.

We feel that we have much definite proof that hyperthyroidism is due to hypoadrenal function, renal insufficiency, constipation, and chronic anhydremia, and not to hyperadrenalism as is accepted by many surgeons. In addition to my own experience in this regard there is considerable therapeutic evidence of benefit in the use of cortin in hyperthyroidism. However, we have seen no reports of results that at all compare with operative results we have had by improving their own glandular functions by adrenalectomy.

We have had numerous cases of hyposexualis, even to frigidity, that have been fully restored by correcting the adrenoptosis. According to Hartmann and others, "In Addison's disease, menses may cease and libido in both sexes may diminish or even disappear. Cortical extract may cause the return of these functions." We have had these same results and have mentioned it in previous papers. In a recent paper before the American Urological Association, we made the statement that there appeared evidence

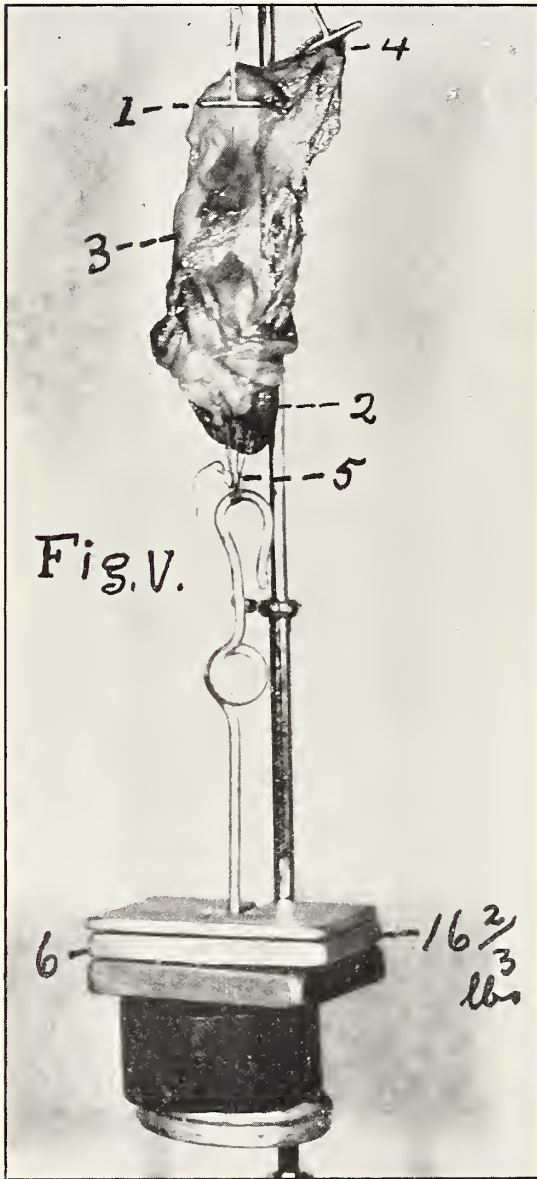


Fig. 5. Demonstration of the real supports of the kidney. Peri-renal capsule removed in its entirety; 1, clamp on peri-renal capsule between adrenal and kidney; 2, lower pole of kidney (uncovered) with sutures through it; 3, peri-renal capsule; 4, diaphragm; 5, sutures; 6, a regular Buck's extension apparatus, with sixteen and two-thirds pounds (46 times the weight of the kidney) of weight attached, when the clamp was pulled off. This should prove to all disputants exactly what supports kidneys in the body.

in our results of either a renal hormone or a reno-adrenal hormone, based upon the greatly improved kidney along with the improved adrenal function. Hartmann adds light and corroboration upon this when he says, "Renal function is directly involved in cortin insufficiency as shown by myself and coworkers, in which it was found that in chronic adrenal insufficiency of cats that there was an accumulation of lipoids in the convoluted tubules, and a further study by Gunn (Buffalo Gen. Hosp. Bull. 1927, V. 13-16) showed that this condition was an actual degeneration of these convoluted tubules."

We have frequently called attention in the past to the improvement of the general metabolism after adreno-nephropexy. This has been shown in the laboratory by Aub, Foreman and Bright (Am. Jr. Physiol. LXI 326-348), who proved that cortin was necessary for normal metabolism, that adrenalectomy reduced this metabolism, and that these effects were independent of the thyroid gland. We mentioned above that adrenal insufficiency increased the liability of acquiring various infections and reduced chances of early recovery; numerous laboratory workers mention that adrenal insufficiency makes the individual animal more susceptible to infections. Perla and Gottesman (Proc. Soc. Exp. Biol. & Med. 1931, XXVIII, 475-477), shows that much fluids with cortin will successfully combat adrenal damage in burns of the body. We have used large amounts of fluids in such cases with great satisfaction, and the addition of cortin may add to this benefit. One of the autopsies studied had an autolysis of the adrenals; this might be a suggestion of more effective treatment in extensive burns.

Lockwood, Hartmann and Hartmann (Proc. Soc. Exp. Biol. & Med., 1933, XXX, 560-562), state, "We have obtained evidence that cortin aids in the utilization of vitamin C in guinea pigs fed with a diet free of this vitamin. If injected with cortin, they resisted scurvy longer than similar pigs without cortin." This would explain the previous statement that we had observed much improved metabolism and health after

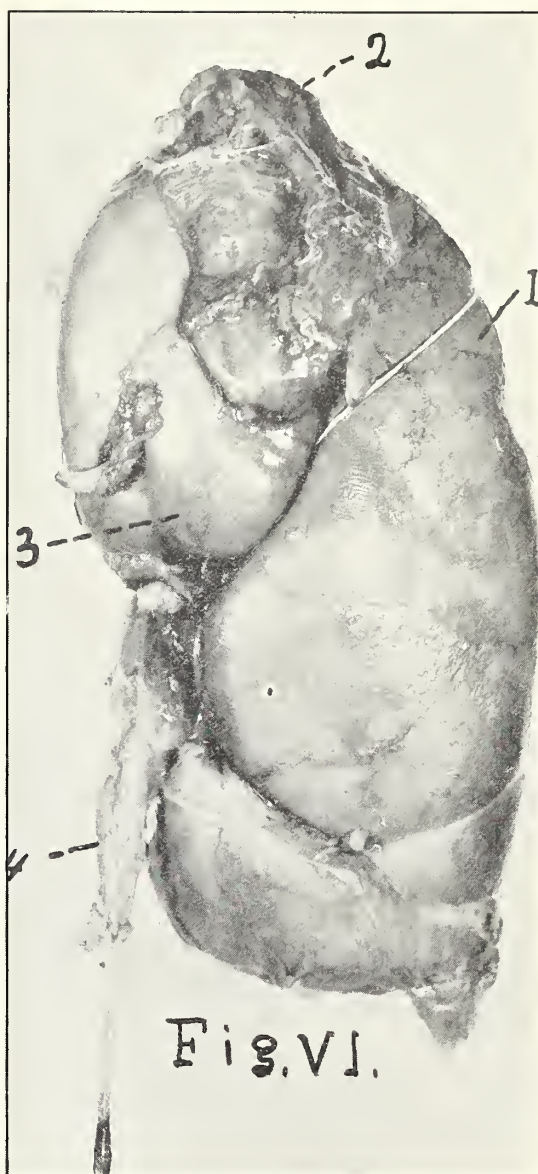


Fig. 6. Post mortem specimen of kidney and adrenal operated three years before death. Note their normal relations. 1, kidney; 2, adrenal; 3, lobule of kidney (congenital deformity); 4, ureter.

adreno-nephropexy. Our own experience with anemia in double adreno-nephropexy is interesting. These cases nearly always have an anemia from as low as 30 to 60 per cent in hemoglobin, and some have been diagnosed and treated as pernicious anemia. Non-operative treatment never benefited this above 50 to 70, but after operation and without further treatment it would regularly increase into the 80's and 90's. Thus it appears that adrenal insufficiency may be the

basis of pernicious anemia as well as the secondary types.

Chronic adrenal insufficiency is markedly reflected in a toneless intestinal tract. The stomach may give the impression of peptic or duodenal ulceration, food fickleness, alkali eaters, et cetera. These symptoms may have been present for years or even for life. The stomach may even refuse to take sufficient food to maintain fair weight; hypotonicity of the above tract is a large factor here, too. Usually within ten days after the above operation, such a patient will be taking any and all kinds of food, something they have been unable to do for years, and you may know that they will continue this ability for life. It is my belief and practice that every case of chronic stomach trouble must have a renal and adrenal study as well as intestinal, and I am glad if the study shows renal and adrenal difficulty, for I am much more sure of getting the patient well.

Crile (J.A.M.A., Oct. 10, 1931), maintains that hyperadrenalism (which we believe is hypoadrenalism) causes peptic ulcers. We have not seen ulcers, but we have had many cases that were so diagnosed and treated, but whose stomach symptoms promptly cleared up after renal and adrenal replacement. These cases are visceroptotics, hypochondriacs, and neurotics, in fact they are typical hypoadrenalics; the majority of them can be promptly and permanently cured by our operative procedure.

Hypocortinism is further shown by varying degrees of pigmentation. Addison's disease produces the deepest degree; it is quite commonly believed to be due only to tuberculosis. However, accurate observations disclose it in only 50 to 75 per cent of cases. Simple atrophy or sclerosis from renal traction may produce true Addison pigmentation; upward pressure of renal tumors will do the same. We have seen the pigmentation reach the color of old saddle leather. These conditions are often mistaken for true Addison's disease; in fact, they are typical. They may be differentiated by our therapeutic test mentioned above. Lesser degrees of pigmentation, all the way from sallowness of the skin to true Addison pigmen-

tation, if associated with hypotension (or hypertension if renal pathology is in the ascendancy), asthenia, renoptosis with pelvic retention for five or more minutes, and with pain—then surgery is indicated.

It is our suggestion that the pigmentations of pregnancy are due to the extreme demand of cortin in the fetal development, which gives the mother a temporary adrenal insufficiency, with many of its other symptoms. Also are the pigmentations of long continued illnesses, such as pulmonary tuberculosis, osteomyelitis, malignancies (here the pigmentation may actually precede the actual recognition of malignancy for years, so much so that we have been able to predict future malignancy in certain individuals). It is surprising and agreeable to the patient to have a sallow or muddy complexion clear up, the eyes bright and sparkling, whereas before they were dull and listless. In estimating and following these cases with pigmentation, insist that your women patients come to your office without their "war paint" on. An elderly woman recently misled her several doctors by her efficient "make up" when she had a dirty skin and a hemoglobin of 30 per cent. The pigmentations following many illnesses are nothing more or less than a positive evidence of adrenal insufficiency resulting from that illness. This may mean actual destruction of the glandular substance. Our defense against acquiring infections and our ability to recover from them is in direct proportion to the quality of our adrenal glands.

Addison's disease is proof preeminent that adrenal insufficiency does occur, and the fact that we have been able to relieve and cure such cases as the following is also proof that true Addison's disease can and does result from simple adrenal insufficiency, without tuberculosis, without sclerosis, and possibly even without atrophy of the glands.

CASE REPORTS

Case 1. Mrs. B. had been diagnosed and treated for Addison's disease. She was asked whether she had negro blood and was mistaken for a negress at one other hospital. She suffered extreme asthenia, was a mental case and had been committed to state asylum, but through a difference of opinion between her doctors was not sent. Later she came into our hands showing typical Addison's disease. We found her to have extreme ptosis of both kidneys with early hydronephrosis.

Therapeutic rest test with much fluids gave improvement as had cortin treatment previously. Operation was followed by rapid recovery—mentally and physically—and pigmentation cleared completely in a few weeks. She has remained entirely well.

Case 2. Mr. W., a plumber, unable to carry on work, was markedly pigmented, had undergone two nervous prostrations in past three years. He had spent six and eight weeks in bed with marked muscular asthenia, less mental asthenia, extreme renoptosis with hydronephrosis, severe, and with renal damage. On the tenth postoperative day, the patient remarked without questioning, "I know now what caused my nervous prostrations." Recovery was uninterrupted and satisfactory.

Case 3. Mr. D., aged 55, suffered gradual loss of ability to carry on work and extreme general asthenia; he had rested three times in walking a block, was apathetic, had many intestinal and stomach symptoms. We found considerable renoptosis with a small amount of hydronephrosis. He made slow progress under therapeutic rest test and made very gradual improvement after operation but went back to hard work in four months. He is still carrying on. He had the poorest adrenals of these three cases.

These results are exactly what one may expect in such types of cases, whether they are definite Addison's or varying degrees of the same. When they show some improvement under the therapeutic rest test with much fluid, then you may confidently advise surgery.

Only a certain few facts concerning the adrenal glands were known until a few years ago. Even today we know, in general, about where they are located and that they have various somewhat mysterious functions. However, in recent years numerous facts have been demonstrated in the laboratory, mainly concerned with using animal cortin as a therapeutic measure. There have been numerous sales agents of pharmaceutical houses trying to increase sales of their products.

The use of cortin in cases in whom the adrenals are actually and permanently damaged by tuberculosis is a Godsend. However, to condemn every hypoadrenalic to a life of animal gland therapy with its great expense and its inadequacy, without a determination of possible ptosis pathology and making an intelligent effort to correct it by physiological surgical procedure, is open to criticism.

It is our feeling that our manufacturers should direct their efforts to produce better and more potent products, which are today

only partially satisfactory and yet so expensive that it is not reasonable to subject a patient to a long continued medication when we have a logical surgical procedure that will restore the adrenal glands to their maximum of hormonal production, sustain life, and correct other associated lesions. We should not let the pharmaceutical houses rush us into an illogical application of even a good product. We must remember that cortin is a useful therapeutic drug but not the answer to our problems, except insofar as it may be applied to the hopeless Addison victim. The dosage is unsettled; amounts have been used from one c.c. to as much as 40 c.c. at a cost of as much as twelve dollars per day. It is rather surprising that there is in reality not much difference in physiological effect in these widely varying dosages. It appears that the body can use only so much of the product, which amount is not known. Usually only life-sustaining doses are recommended. Nor has the long continued use of large amounts resulted in any malady that previously was supposed to be due to hypercortinism—possibly a further argument that hyperadrenalism does not exist.

We believe that ours is the first suggestion that the logical procedure is to study the living human patient that is suffering from hypoadrenalism, and that ours is the first suggestion to offer evidence that this human study is more accurate than that upon animals. Many of the interpretations upon animals must necessarily be only the interpretations of physiological symptoms in the animal, which, we maintain, is less accurate than the same upon the human being wherein we have the intelligence of the patient to assist in the interpretation. Further, in our procedure we know that the hormones are being restored to their greatest possible function. Also, it has been impossible so far to reproduce in animals actual chronic adrenal insufficiency of the type found in the human being. It is rather striking that the older investigators had more or less the same results in experimenting with adrenalin from the medulla as the more recent investigators have had with

cortin from the cortex. Therefore, it appears that both have certain effects that overlap each other. It may be that adrenalin carries us over a sudden shock where the slower acting cortin sustains through a long continued stress; sudden collapse from bad news may be explained as a sudden adrenal insufficiency in the presence of chronic cortin insufficiency, with deficient heart tonus and cortin reserve. It is extremely unfortunate that we do not have an accurate measure of the adrenalin and cortin in the blood stream. However, we do have many symptoms directly associated with adrenal cortex insufficiency which are so definite that they leave little doubt as to the accuracy of our interpretation.

My observations have covered such a wide variety of illnesses that it would appear that the functions of the adrenal glands is of much wider scope than has ever been ascribed to it before or thought to be possible. The thing, as a whole, seems almost incredible, but with the repetition of the successful restoration from these symptoms over so long a time and upon so many individuals, we have been compelled to accept the association of these symptoms and their relief to the fact that we have improved both the urinary system and the more important one, from a systemic standpoint, the internal glandular system. Further it would appear that the adrenal glands are the control center of the whole internal glandular system as well as of the involuntary features of the entire body.

Numerous reagents have been used for the extraction of cortin—alcohol, acetone, ether, chloroform, benzene, and water. It is not at all probable that these extracts all obtain the same products, and there is no agreement yet as to which may be the best. They all appear to have one quality in common—they will sustain life in adrenalectomized animals for a longer or shorter period, but none fully replace the natural glands products. Our work is in a class by itself and is perhaps far ahead of the present laboratory experiments and insufficient glandular therapy as now applied to the human being. Yet there are many phases of the laboratory re-

sults that offer much proof of the clinical observations and results we have had for many years. Our application of these principles, physiological surgery, in human therapy, may be the final and complete answer to our endeavor to correct adrenal insufficiency in human beings. It is also possible that animal therapy will always remain inadequate as compared to the optimum benefit obtained by the intelligent use of surgery.

STUDY OF SEVENTY-FIVE UNSELECTED CASES AT AUTOPSY

Age	Number of Cases	Renoptosis (Inches)	Adrenoptosis (Inches)
Birth - 1 yr.	14	Normal	Normal
1-10	7	0.39	0.07
11-20	3	1.25	0.50
21-30	8	2.35	0.70
31-40	5	1.85	0.50
41-50	10	3.50	1.35
51-60	8	3.20	1.38
61-70	12	3.17	1.02
71-86	8	2.09	0.29
66-86	12	1.85	0.28
Those dying from some type of insanity—			
	5	4.80	1.96

The relationship at birth is regarded as normal. Adrenoptosis is highest in those dying between 41 and 66 years. Renoptosis is also highest in this period.

All those dying after 66 years of age had an adrenoptosis of only 0.28 inches—this may be the reason why they lived to this age.

The great ptosis of kidneys and adrenals in the insane may well be regarded as a factor; the condition is too constant to be disregarded.

ABSTRACT OF DISCUSSION

George Williams, M.D., Denver: I'd like to call attention, first, to the importance of the sympathetic innervation of the adrenal glands. There are literally myriads of non-medullated fibers arising in the celiac plexus, penetrating the capsule of the suprarenal gland and entering the cortex. These fibers traverse the cortex in the reticular tissue and enter the medulla, many ending in the cortex.

We all know the recent popularity that sympathetomy has attained in the treatment of varied conditions, particularly vascular lesions. In the light of this work that has recently been done in sympathetomies and the relief given in various conditions due to excessive sympathetic stimulation or sympathetic pathology, it is easier to see the results which occur from functional injury to the sympathetics supplying a tissue which produces a hormone which is as active and important to the human organism or any animal organism as is the adrenal secretion. The first person who hypothesized the importance of the sympathetic innervation of the adrenals was Addison. In 1849, before the London Medical Society, he gave a paper on the disease later termed "Addison's disease," and immediately after his paper the chairman made some derogatory remarks about his work and Mr. Waterworth arose and immediately proceeded to prove that the adrenals were very insignificant organs and could be dispensed with in the body without harm or injury to the individual.

In considering the question of the adrenals, there has been the criticism of Dr. Fowler's work

that in the human and mammalian organisms we have a large safety factor in the physiological function of almost all tissues. It is not so with the adrenal glands. In animals the removal of one adrenal gland is usually fatal. The higher is the mammal in classification of animals, the more susceptible the experimental animal is to the removal of the adrenal glands. Much experimental work has been done in the subject of adrenal insufficiency and it is found that approximately 75 to 80 per cent of cortical tissue is necessary to maintain health in experimental animals, and when this percentage is cut down, symptoms of insufficiency are produced and if it is reduced below 45 or 50 per cent, it is often fatal to the animal. There is another interesting point about compensation. Most glands and organs will compensate for the removal of the contralateral organ. For instance, a kidney will hypertrophy on the left side if the right is removed. This is not usually so with the suprarenal glands. In part of the suprarenal tissue is removed, in most experimental animals the remaining cortical tissue does not hypertrophy or compensate for the loss.

Consider general visceroptosis as secondary to injury of the function of the adrenals. It is generally thought that renoptosis and adrenoptosis are a part of the picture of general visceroptosis, but it is known that with injury to the adrenal glands we get lower tonus of all vegetative organs supplied by the sympathetic nervous system, particularly the vascular system.

There is one great need in this phase of work which would greatly help the clinician in discovering and diagnosing cases of partial suprarenal insufficiency. That is a test for the blood serum cortin content. We have a test which is fairly accurate for adrenalin content of blood, but so far we have no test for cortin content of the blood. When we do get that, then we will have a laboratory diagnostic test which will give evidence and supplement our clinical observations in the diagnosis of partial suprarenal insufficiency.

Paul C. Carson, M.D., Denver: In a great many cases in which we correct the ptosis of the kidney, having done the laboratory work on them I couldn't find sufficient evidence of urinary changes to indicate pathology in the kidneys that would warrant the subsection of the patient to this operation, but most of these cases are the visceroptotic type, with low blood pressures and general run down condition. However, the failure of finding definite pathology in the kidney didn't prevent Dr. Fowler from doing the operation, and the other conditions began to improve.

Lawrence Dickey, M.D., Fort Collins: Those of you who know Dr. Warthin's ideas on constitutional pathology and on the thymico-lymphatic constitution which has as its pathological basis hyperplastic thymus with hyperplastic lymphatic system associated with a hypoplastic cardiovascular and hypoplastic adrenals know that the early work has emphasized the thymic side of it. In the last few years they have come to the point of view that the adrenals were the factor behind this pathologic constitutional entity and that it is associated in all cases of exophthalmic goiter. Warthin has made the statement that in all allergic conditions, especially bronchial asthma, that it is the cause and has even gone so far as to state that he believes it is the pathologic constitution behind cases of rheumatic fever. But when you consider a constitutionally hereditary condition, it does not give us much hope outside of eugenic problems as to the ultimate solving of this condition.

John B. Hartwell, M.D., Colorado Springs: I think it was seven to ten years ago that Dr. Ryder and I undertook some experimental work in connection with the suprarenal gland. The experimental animals were guinea pigs and it was particularly in connection with the adrenals and tuberculosis that our work was started.

It didn't pan out very well in that way. I don't remember exactly the results but it is my opinion or my recollection that a complete removal of one adrenal did not result in the death of the animal, and that the contralateral adrenal, after a lapse of time, definitely did hypertrophy.

Gerald B. Webb, M.D., Colorado Springs: I can corroborate those statements, Dr. Hartwell, because that was work done in the Foundation for Tuberculosis and that is exactly what happened.

Dr. Fowler (Closing): I have not had the opportunity of proving or disproving the matter of hypertrophy of the opposite gland. However, we do not really need to have it in the human because these are not unilateral lesions; these are bilateral lesions. However, the left kidney does not ptose to the extent of the right and probably does not damage its adrenal quite so much as on the right side, because the inferior adrenal artery comes closer to the aorta from the renal than it does on the right.

The matter of visceroptosis being secondary to hypoadrenalism, or perhaps the other way around, opens up an elusive discussion because when they once get started they work in a vicious circle. The more visceroptosis and renoptosis, the greater insufficiency of the adrenal and therefore the less tonus and therefore the more visceroptosis around it.

A blood test of cortin in the human blood stream would be a most valuable procedure and if we had that we could clarify this whole thing in the course of six months' test so that there could be no argument. But inasmuch as we have no test of that sort today, we cannot speak except in clinical terms and clinical interpretations on the human being. The tests of adrenalin on animals is also a physiological test and it is probably just as easy to estimate the physiology or insufficiency of the adrenal glands in the human being without going to the trouble of interpreting the physiological appearance of the animals under such tests.

I have mentioned Warthin and Simpson in my paper as being the first to observe and insist upon the relationship between hyperthyroidism and hypoplasia, as they called it, of the adrenal which must mean atrophy of the adrenal. They have stood their ground against a good many criticisms in their own pathological societies on that particular point, and they maintain that a child is born to have a goiter; with this thymico-lymphatic constitution the chances are that they will have a goiter. Furthermore, I think you can go into a school room of children and you can pick out the ones that are going to be visceroptotic.

In addition to the ptosis, the same destruction or insufficiency is found in individuals with bilateral tumors of the kidney. The occasional case of a double hydronephrotic tumor of the kidney is markedly a hypoadrenalic and may simulate the true Addison's.

The results that I have had have been forced upon me, as have the conclusions I have drawn. If you see the results of the work, you cannot help but be convinced of the relationship of these glands to the function of the various other glands and to the general metabolism of the body.

THERAPEUTIC USE OF URINARY PROTEOSE*

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Despite the fact that much valuable research has been done during the past fifty years in the field of allergy and many sufferers have been relieved or cured by various methods, there remains a certain number of cases that fail to respond for any length of time to any therapeutic regime. This is especially true in asthma. The need for organized investigation of the latter symptom complex has been felt for many years and in 1927, largely through the instigation of two laymen who themselves had long been sufferers from asthma, the Asthma Research Council of Great Britain was organized with Dr. A. F. Hurst as Chairman of the Medical Advisory Committee. An extensive program of investigation was outlined, including the formation of asthma research centers at leading hospitals. Extensive studies of the clinical and laboratory findings in cases of allergy were designed.

Studies on the blood and urine of asthmatic cases have revealed certain deviations from the normal. Only the urinary changes may be discussed here. During the paroxysm in the asthmatic the free acidity of the urine rises, the specific gravity is high, chlorides are retained, there is increased ammonia excretion and the excretion of amino acids, creatinine and uric acid rises. Following the asthmatic paroxysm, the urinary changes are reversed. Probably of most importance to the present discussion is the observation of Cameron that the protein content of the 24 hour urine is increased in the asthmatic during the attacks.

Protein split-products of a complex nature and known collectively as proteoses have frequently been found in the urine under various pathological conditions, such as diphtheria, pneumonia, intestinal ulcer, carcinoma, tuberculosis, et cetera. In 1928, Barber and Oriel of Guy's Hospital (the latter

a Fellow of the Asthma Research Council) reported finding a proteose-like body in the urine of cases of allergy as well as in the various conditions just mentioned. A similar substance is found in normal urine, but Oriel has recently reported a chemical method for differentiating between normal and allergic proteoses. A modification of their method for the preparation of this substance will be given later. Aqueous solutions of this material give many of the characteristic reactions for proteoses. On hydrolysis the substance will reduce Benedict's solution and probably contains a carbohydrate fraction, and the hydrolysate gives positive tests for a number of amino acids. More recently Oriel has reported that the substance may be of the nature of a glyco-protein. The Guy's Hospital workers have carried on clinical studies with this urinary proteose-like substance with the view to determining its specificity and its value in the therapy of allergic conditions. They claim to have demonstrated the following in the allergic patient:

(a) Proteose isolated from the urine of the allergic patient during an acute attack will usually give a positive intradermal test in the patient's own skin.

(b) Proteose injections into the allergic patient will reproduce his symptoms, and

(c) Injection of small doses may desensitize him and free him of symptoms.

(d) If proteose is made from the urine in the period when the patient is free of symptoms, none of these phenomena will occur.

Since the Guy's Hospital workers reported their findings on the proteose-like substances obtained from the urine of allergic patients, numerous studies have been carried on, both in this country and abroad, with the object of determining its specificity and its value in the treatment of allergic conditions. Our studies were begun in August, 1930, since which time we have observed the effect of proteose administration in 175 cases of allergy and related condi-

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tions. The method of preparing the proteose from the urine which we now use is a modification of the procedure described by Oriol. We have introduced several features which we believe are important in its preparation. Four hundred cubic centimeters of urine are collected in a sterile bottle containing from 2 to 4 c.c. of chloroform. If an active proteose is to be obtained, it is necessary that this specimen be collected during allergic symptoms. After a preliminary chilling (so as to diminish ether evaporation) the specimen is filtered through filter paper into a large separatory funnel. Sufficient 25 per cent sulphuric acid is added to render the urine acid to Congo-red. After thoroughly shaking this acidified urine with 80 c.c. of ether the mixture is allowed to stand and, after the ethereal layer has separated, the lower urinary layer is drawn off and discarded. An equal volume of 95 per cent alcohol is then slowly added, care being taken to agitate the funnel during this addition. The white precipitate which forms is allowed to settle and is drawn off into a centrifuge tube. After centrifugation the supernatant layer is discarded and the sediment thoroughly mixed with 15 c.c. of distilled water. This mixture is centrifuged and the supernatant fluid again discarded. The sediment is dissolved in tenth normal sodium hydroxide (3 to 4 c.c.) and then enough Evans' solution is added to bring the total volume of the solution to 10 c.c. The material is then filtered through a sterile Seitz filter into a sterile tube or vaccine bottle which is plugged with a sterile rubber stopper. If proved sterile (1 c.c. cultured for 48 hours in a deep tube containing 10 c.c. of glucose broth) subsequent dilutions in multiples of ten are prepared as desired.

Since there seems to be considerable disagreement among European workers regarding the practical significance of skin tests generally in many allergic conditions and, since similar disagreement exists with respect to skin tests with urinary proteose, we will merely give brief mention of our conclusions based on skin tests performed on more than 100 cases of known allergy.

Briefly the following deductions have been made:

1. With few exceptions all scratch tests with proteose were found negative.
 2. Intradermal tests were never as marked with proteose as the scratch test with pollen.
 3. Allergic patients were prone to react to any allergic proteose, as well as to their own, and oftentimes to normal proteose.
 4. Normal subjects seldom reacted to their own proteose but oftentimes reacted to allergic proteose.
 5. Hay fever patients gave the strongest intradermal reactions to their own proteoses.
- We conclude that allergic proteose is more skin irritant than normal proteose to both allergic and normal skins. The frequency of multiple sensitizations in allergic patients makes it difficult to draw definite conclusions regarding its specificity for any given antigen with the possible exception of the pollens. We feel that skin testing can not be taken as a reliable indication of the specificity of a proteose for a given antigen because of the difficulty encountered in interpreting the tests.

Since most of the work performed on proteose relates to its specificity and since little attention has been directed toward its therapeutic application, we feel that three years' experience with this substance in the treatment of various conditions should be of interest to members of this Society. Controversial questions relative to its composition, origin, and significance will not be considered since they have not been the subject of our direct investigation. In brief, therapy was conducted as follows:

Subcutaneous injections were given twice weekly in dilutions of from 1 in 1000 to 1 in 1,000,000,000 and in doses of from 0.01 to 1.0 c.c. The dosage was varied according to the therapeutic indications. Proteose was used to the exclusion of all save symptomatic treatment except in twenty-six cases of asthma in which stock vaccine complemented proteose after proteose alone had proved ineffective. Local reactions after injections almost never occurred. Focal reactions occurred frequently, especially in

TABLE 1. HAY FEVER

Season	No. of Cases	Degree of Improvement			Proteose Used			Time Under Our Observation	Average Interval for Therapeutic Response (Approximate)
		Complete or almost Complete	Partial to almost Complete	None to only Slight	Autogenous	Heterogeneous	Both		
1931	10	7 (70%)	3 (30%)	0	10			6 weeks to 4 months	6 days
1932	18	5 (27%)	12 (66%)	1 (7%)	18			1 to 4 months	9 days
1933	26	11 (45%)	10 (41%)	5 (14%)	16	5	5	3 weeks to 4 months	8 days
Totals	54	23 (42%)	25 (46%)	6 (12%)	6 were late type; all improved. 7 showed no improvement until heterogenous proteose administered.				

patients with allergic dermatitis and with asthma. Administration of a weaker dilution of the proteose after a focal reaction is always indicated. Practically all patients were under observation for a sufficient time to afford some idea as to whether improvement was apt to result from proteose desensitization and, if so, whether it was to be sustained. There appeared to be no sustained desensitization from one year to the next in the few hay fever cases treated for more than one season. Patients with multiple sensitization, varied allergic manifestations, or active foci of infection were most refractory and improvement was obtained with difficulty. The results are summarized in the accompanying tables.

The results in uncomplicated seasonal hay fever were more definite than those obtained in any other condition studied. During 1931-1932, it will be noted that out of twenty-eight cases all improved with the exception of one. The percentage of cases improved this season compares favorably with that of previous years in spite of the severity of the

hay fever this season. Of the 1933 group (twenty-six cases) ten failed to respond to autogenous proteose. In these cases, heterogeneous proteoses prepared from patients with similar sensitivity were administered and in seven of these improvement promptly followed. Autogenous proteose has not been used extensively in pollen sensitization but Watson has reported amelioration of symptoms in seven cases of ragweed hay fever. The hay fever-asthma group of cases improved in many instances to either autogenous or heterogeneous proteose. Treatment, however, was more difficult because asthmatic reactions from too large a dose of proteose were frequent and multiple sensitizations were often encountered.

In contrast to the encouraging results obtained in hay fever, and in hay fever with asthma, are the disappointing results obtained in our series of asthmatics. Complete relief was noted in but few instances and partial sustained improvement in but few others. Oriel has recently reported the results in treatment of seventy asthmatics.

TABLE 2. HAY FEVER-ASTHMA

No. of Cases	Degree of Improvement						Proteose Used			Time Under Our Observation	Average Interval for Therapeutic Response (Approximate)
	Complete or almost Complete		Partial to almost Complete		None to only Slight		Autogenous	Hetero- geneous	Both		
	Asth- ma	Hay Fever	Asth- ma	Hay Fever	Asth- ma	Hay Fever					
16	3	2	8	11	5	3	10	3	3	2 months to 1 year	11 days
							4 showed no improvement until heterogenous proteose added				

TABLE 3. ASTHMA

Number of Cases	Degree of Improvement			Time Under our observation	Interval for therapeutic Response	Cases in Which Proteose Combined with Vaccine
	Complete or almost Complete	Slight to Partial	None			
Pollen Asthma 5	1	3 (temporary)	1	2 to 4 months	4 to 21 days	0
Non-pollen Asthma 49	2 (4%)	24 (49%) (20 temporary)	23 (47%)	3 weeks to 3 years	1 week to 4 months	26
Totals 54	3 (5%)	27 (50%) (23 temporary)	24 (45%)			

These were classified in two groups: protein sensitive and non-protein sensitive. Results were much better in the former group of forty-four cases in which 92 per cent were improved. In the non-protein sensitive group (twenty-six cases), improvement occurred in only 46 per cent. Our smaller percentage of cases improved may be due to a greater preponderance of non-protein sensitive cases and possibly to the fact that most of our cases were asthmatics of long standing who had proved refractory to the standard forms of treatment. The only other reference in the literature to the use of proteose in asthma, in which the details are given, is an article by Trasoff and Meranze in which negative results in eight cases are reported. Their complete lack of results may be due to insufficient treatment.

Oriel and Barber have reported encouraging results in many dermatological conditions. Our series contains twenty-five cases of eczematous dermatitis of which twelve were definitely allergic patients. The results in these twelve patients were encouraging, particularly as compared with the group having no definite history of constitutional allergy. Focal reactions were encountered in the definitely allergic group and rarely in the cases of unestablished allergy. Seven of eight patients with urticaria and one with angio-neurotic edema improved. Focal reactions in this group were common, particularly early in treatment. Eichenlaub reports encouragingly upon the use of proteose in eczema, psoriasis, neurodermatitis, dermatitis herpetiformis, and urticaria. Cormia re-

TABLE 4. SKIN CONDITIONS

Condition and Number of Cases	Degree of Improvement			Time Under Our Observation	Interval for Therapeutic Response
	Complete or almost Complete	Slight to Partial	None		
Eczema: History of association with other allergic conditions 12	8	4 (temporary)	0	2 weeks to 2 years	1 week to 1 year
Not associated with other allergic conditions 13	1	3 (2 temporary)	9	2 weeks to 2 years	Very gradual
Total 25	9	7	9		
Urticaria 8	4	3	1	2 weeks to 10 months	1 week to 10 months
Angio-neurotic edema 1		1		2 years	9 months
Psoriasis 1			1	1 month	
Erythema multiforme 1		1 (temporary)		1½ years	Frequent exacerbations

TABLE 5. MISCELLANEOUS CONDITIONS

Condition and Number of Cases	Degree of Improvement			Time Under Our Observation	Interval for Therapeutic Response
	Complete	Slight to Partial	None to Slight		
Vasomotor Rhinitis 8	1	5 (4 temporary)	2	6 weeks to 1 year	1 week to 1 year
Migraine 7		5 (2 temporary)	2	2 weeks to 8 months	Gradual
Rheumatoid Arthritis 11		3 temporary	8	3 weeks to 3 years	
Eye Conditions: Vernal Catarrh 2	2			3 weeks to 2½ months	1 week
Chronic conjunctivitis 2	2			3 to 6 months	Gradual
Iridocyclitis 3	1	1	1	3 months to 2 years	Gradual

ports no results after ten intradermal injections in each of eight cases of eczema. We believe that treatment of this duration is insufficient from which to draw conclusions. The series of cases with vasomotor rhinitis and migraine is not sufficiently large to warrant comment except as the results suggest the fair trial of proteose in intractable cases. Migraine patients are highly reactive to their own proteose and it is necessary that very small doses be given.

Oriel comments upon the presence of a reactive proteose in the urine of patients with rheumatoid arthritis. Our therapeutic results in eleven cases are essentially negative. Aldred-Brown and Munro report no improvement in fifty cases of rheumatoid arthritis. In a preliminary note Yeoman et al report encouragingly upon its use in this condition.

The use of autogenous proteose in the treatment of various eye conditions has been suggested by Mills and Martyn. Our experience in treatment of these cases is limited. Two cases of vernal conjunctivitis and two of chronic conjunctivitis cleared up completely. Of three cases of iridocyclitis one cleared up completely, one partially, whereas a questionable improvement occurred in another.

The results in 175 cases of allergic and suspected allergic conditions have been briefly presented in order that the members of this Society might become acquainted with the possibilities of its use. We believe that at the present state of our knowledge proteose desensitization should be consid-

ered only as an adjunct to the present well established methods of treating allergic diseases.

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The medical profession glory in certain traditions, one of which is that the members of the profession care for those who are in need. Traditions have their place, but, as times change, we must view tradition in the light of reality, or we shall become enslaved, just as medicine was bound for centuries to the traditions of Galen. There is no reason why the medical profession should, alone, attempt to shoulder an economic burden which will crush it. There will always be opportunities for self-sacrifice on the part of profession, but to call upon it to provide free medical service is neither logical nor desirable.—Reprint, The Canadian Medical Association Journal.

THE CLINICAL APPLICATION OF THE KETOGENIC DIET*

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The use of the ketogenic diet as a therapeutic measure forms one of the most interesting chapters in the history of medicine in the last ten years. In 1921, Wilder's interest in the treatment of epilepsy was aroused by the favorable result of prolonged fasting reported by Geylin. Wilder suggested that the same physiological result as produced by fasting might be accomplished by the use of a high-fat, low carbohydrate diet now commonly referred to as the ketogenic diet. Following Wilder's suggestion, the ketogenic diet was used experimentally in selected cases of epilepsy. Since that time, this form of treatment has been extensively used in the treatment of this condition until, at the present time, it is one of the accepted forms of therapy for grand and petit mal.

In 1926, Barborka conceived the idea of trying the ketogenic diet in the treatment of a case of severe abdominal migraine. The results were so encouraging that its use was extended to other cases of migraine. The favorable effect of this regime in the treatment of this syndrome has been amply set forth in the published reports of Barborka and others.

In 1931 Clark was attempting to find a more satisfactory treatment for chronic urinary infections. He was working on the basis that the growth of bacteria is inhibited in a urine of a low pH. Barborka, knowing of his work, volunteered the information that the pH of the urine of patients on the ketogenic diet was very definitely reduced. This led Clark to try the ketogenic diet in the treatment of urinary infections. Helmholtz, who had been experimenting with urinary tract infections for several years, made the observation independently and almost at the same time that the urine of children under treatment with the ketogenic diet had bactericidal powers. In the past two years, this diet has been rather widely used in the

treatment of urinary tract infections. The results have been almost startling in some instances and sufficiently encouraging in most instances so that it appears at present as though this form of therapy is going to prove more successful than any previously known method of treating stubborn chronic urinary tract infections.

It is rather a unique state of affairs that a diet made up principally of fat with a minimum of carbohydrate should be used in the treatment of three diseases so widely separated in their nature as epilepsy, migraine, and urinary tract infections. As is true with most new forms of treatment, the ketogenic diet has been tried in many other conditions. I do not believe, however, that it has been sufficiently successful in any other conditions to warrant mention at this time. Due to the intense interest that has been created from the success of this form of therapy in the treatment of urinary tract infections, and because the principles of therapy in so far as the administration is concerned are essentially the same whether one is treating epilepsy, migraine, or urinary tract infections, it seems worth while at this time to point out some of the fundamental principles in the use of the ketogenic diet as well as the types of cases most adaptable to its use and the results that may be anticipated.

When it is necessary to continue this dietary regime over a period of nine to twelve months or longer as is usually the case in migraine and epilepsy, it is of paramount importance that the patient receive an adequate amount of protein, vitamins, and minerals in order to avoid a dietary deficiency syndrome. Lack of attention to this point early in the use of the ketogenic diet lead to unfortunate results. Unless special provisions are made, the diet is deficient in vitamin B, and a negative balance of phosphorus and calcium exists. It is, therefore, advisable to supply vitamin B in the form of brewer's yeast, and calcium as calcium lactate. So far as I know, no cases of pel-lagra or amenorrhea have been reported

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since an effort has been made to supply adequate protein, vitamin B, and calcium. In treating urinary tract infections, it usually is not necessary or advisable to have the patients on the diet for longer than four to six weeks at any one time. The possibility in this instance of developing a deficiency syndrome is very slight. It is entirely proper, however, even though the diet is to be used for a short period of time, to take every precaution to prevent any possible deficiency.

There are many ways of calculating the ketogenic diet. From a practical standpoint, however, only a few fundamentals need to be carefully observed. It is most important, of course, to supply the patient with an adequate number of calories to prevent loss in weight and to supply a sufficient quantity of protein for the body needs. In calculating the diet, then, first figure the caloric requirement of the patient. It is very simple to estimate the protein requirement in terms of kilograms of body weight, and, therefore, this same method may be used in figuring the caloric requirement. The patient's weight can be reduced to kilograms by multiplying the weight in pounds by .45. The average patient doing moderate exercise requires about 30 calories per kilogram of body weight. The weight of a 150-pound man expressed in kilograms would be 67.5. Therefore, 67.5×30 will give us 2025 as the caloric requirement of a patient weighing 150 pounds. Some authorities use as low as $2/3$ gram of protein per kilogram of body weight. One gram of protein per kilogram, however, is entirely satisfactory and assures one of an adequate protein requirement. If the patient in question is to receive 67.5 grams of protein, he will receive 67.5×4 or 270 calories from this source. Subtracting 270 from 2025 equals 1755 calories to be supplied from carbohydrate and fat.

In treating migraine and epilepsy, the desired goal is a state of ketosis as evidenced by acetone and diacetic acid in the urine. In the treatment of urinary tract infections, it is important to reach as high a state of ketosis as possible and, in turn, a pH of the urine below 5.3. Therefore, in treating

a case for urinary tract infection, it is important to put the patient on a diet low in carbohydrate as quickly as possible. It is not possible to prepare a diet that contains much less than 15 grams of carbohydrate. When the diet was first used at the Mayo Clinic, it was customary to reduce the carbohydrate in three or four stages requiring from seven to nine days. This was done to allow the patient to become adjusted to a radical change in his dietary habits and to prevent the occurrence of nausea. It was later learned, however, that in many instances several of these steps could be eliminated without any bad results. Therefore, in the treatment of urinary tract infections, one can start the patient on a diet containing 50 to 60 grams of carbohydrate and, within a day or two, reduce the carbohydrate to 15 or 20 grams as necessary. I have even, in dealing with highly co-operative patients who had had previous experience with the diet, started them on a diet that contained as little as 15 or 20 grams of carbohydrate. In using the diet for the treatment of migraine and epilepsy, it is possible to start with a diet containing as high as 80 grams of carbohydrate reducing the amount 10 grams each day until the desired state of ketosis is obtained.

The amount of fat written in the diet is calculated by subtracting the total calories obtained from carbohydrate and protein from the total calories required and dividing this figure by nine. It is difficult to persuade most patients to live on a diet that contains much over 250 grams of fat. If the diet produces nausea or otherwise disagrees with the patient, giving a small amount of orange juice and a short period of fasting will usually relieve these symptoms. Intelligent co-operative patients that are being treated for migraine and epilepsy rather quickly become adjusted to the diet. Barborka and I used the combination of the ketogenic diet and dehydration on many cases of epilepsy and migraine. It was our experience that patients as a rule objected more strenuously to dehydration than they did to the high-fat diet. The diet is naturally dehydrating, and, if fluids are not re-

stricted, patients have a tendency many times to take an abnormal amount of fluids. This increased urinary output may interfere with the lowering of the pH of the urine; therefore it may be necessary to limit the intake of fluids in the treatment of urinary tract infections.

As to the selection of cases to be treated with the ketogenic diet, in general any case of epilepsy, migraine, or chronic urinary tract infection that has not responded to other forms of therapy may be given a trial with the diet. It is obvious, however, even to a casual observer that there are certain varied factors that occur which make certain types of cases much more adaptable to treatment than others. As far as epilepsy is concerned, it has been my experience that probably the most important prerequisite in the choice of cases involves the intelligence of the patient and his ability and willingness to co-operate in following a strictly dietary regime. The ketogenic diet can be given qualitatively, but in the majority of instances it is my feeling that the results will not be satisfactory unless the strict quantitative regime is closely adhered to. This necessitates the patient's being under the supervision of a dietitian for a sufficient length of time to learn the principles of a weighed diet. Therefore, of course, the patient must have the intelligence to learn certain dietetic principles, and his environment and habits must be such as to allow him to follow out a weighed dietary regime after he has learned the principles underlying it. There are exceptions to the above, of course, in the case of institutional or hospital cases. It is unpleasant for some patients to take a diet so high in fat, and so it is very important, as previously stated, to have the patient anxious and willing to cooperate in the treatment.

Epileptics, who have no underlying organic disease of the brain, the so-called idiopathic group, usually obtain the most benefit from the ketogenic diet. In this group, the younger the patient and the shorter time the patient has suffered from seizures, the more satisfactory the results are apt to be. The epileptic who has had frequent seizures for

many years, who has deteriorated mentally to the point where co-operation is practically impossible, is not a satisfactory type of case. I do know of a few instances, however, where the means of the patient permitted the carrying out of the diet under the supervision of trained dietitians and nurses in whom the results were distinctly encouraging even in very severe cases. It is interesting to note that the type of epilepsy referred to as petit mal, which is usually quite refractory to treatment with phenobarbital and other sedatives, frequently responds to this regime. Statistics vary somewhat as to the results obtained. It can be stated, however, that in adults approximately 20 per cent of cases can be controlled, and somewhere between 35 and 40 per cent can be definitely improved. The percentage of controlled cases in children is much higher than in adults. In general, however, roughly 50 per cent of patients can be either controlled or definitely improved.

It has been my privilege to be in intimate contact with the use of the ketogenic diet in the treatment of migraine since its beginning. Barborka has reported a series of cases from the Mayo Clinic in the management of which I took an active part. Many of the more recent cases which we treated have not been reported. In our experience, at least 30 per cent of the cases of migraine are controlled and an additional 50 per cent are improved. In many of the cases, the results are most gratifying. It is very important, in this instance, that patients selected for treatment are actually suffering from migraine rather than headaches secondary to nervous fatigue, hypertension or some other disease. Usually, only patients having considerable disability from frequent severe attacks of migraine are willing to submit to a regime necessitating such a radical change in their dietary habits.

This form of therapy has not been used a sufficient length of time in the treatment of urinary infections so that any hard and fast rule can be formulated at present as to its sphere of application. Certain facts, however, have been established. First, there is a variation among organisms as to their

sensitivity to the lowering of the pH and the bactericidal powers of ketone urine. The growth of *Escherichia coli* is particularly inhibited in a ketone urine in which the pH is below 5.6, and a ketone urine with a pH below 5.3 is practically bactericidal. Helmholtz has shown experimentally as well as clinically, however, that the growth of other organisms is inhibited by ketone urine with a pH below 5.6. In the near future, we shall probably have a clearer concept as to which organisms are most sensitive to the bactericidal powers of ketone urine.

The ketogenic diet was first used in severe chronic infections of the urinary tract that had not responded to any other forms of treatment. In this group there is no doubt a tremendous field for this new form of therapy. It is, however, only logical to presume that the more recent the infection and the less extensive and severe the inflammatory process in the urinary tract, the more prompt the result and the greater the possibility of permanent cure. In a personal communication with Clark, I have learned that the field for the use of this treatment is extended to include urinary tract infections following instrumentations such as cystoscopy, catheterization, and various operations on the urinary tract. In my experience, palliation can frequently be accomplished by means of the ketogenic diet in conjunction with acidifying agents such as ammonium nitrate, and urinary antiseptics in patients suffering from serious underlying disease of the urinary tract where the possibility of complete sterilization of the urine is extremely remote.

Certain patients will be encountered who cannot take a high-fat diet; others are apparently unable to assimilate it or seem refractory to the diet. In certain instances the renal function has been so reduced that the ketone bodies are not excreted in sufficient concentration to lower the pH of the urine below 5.6. The fact is now well established that no results should be anticipated unless the pH of the urine can be brought below 5.6. Circumstances may be such in the acutely ill patient that it is impossible to take a diet so high in fat.

Summary

1. The ketogenic diet has been sufficiently used as a therapeutic measure in the treatment of epilepsy to warrant its recognition as one of the best forms of treatment for this condition.

2. In my experience, this regime is of greater value in migraine than it is in epilepsy although it has not been used as extensively.

3. If experience in the future substantiates present impressions, the ketogenic diet will prove to be more successful in the treatment of infections of the urinary tract than any other previously known method of treatment.

4. This form of therapy involves the administration of weighed dietary regime under carefully controlled conditions.

5. In the treatment of migraine and epilepsy, a state of ketosis must be maintained; results will not be obtained with urinary tract infection unless, in addition to a state of ketosis, the pH of the urine is lowered below 5.6.

6. All patients suffering from epilepsy, migraine, or infection of the urinary tract are not suited to this form of treatment. It is, therefore, of utmost importance that reasonable judgment be used in the selection of cases.

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ABSTRACT OF DISCUSSION

A. J. Markley, M.D., Denver: The use of urinary proteose appears to be merely another method of employing the antigen-antibody principle in the problem of obtaining specific desensitization. Whether or not it is a true antigen-antibody reaction this method, according to the authors, has been successful exactly so far as the disorders they have endeavored to treat can be shown to be the results of specific sensitization. This corresponds very closely with our clinical and experimental knowledge of the origin and character of such conditions.

Hay fever can ordinarily be regarded as almost 100 per cent allergic and if the antigen can be identified, it is easy to obtain positive skin tests

and, most important of all the tests for allergy, the passive transfer, and a diagnosis of true allergy should never be made in the absence of a positive Prausnitz-Kustner reaction. In hay fever the authors seem to have obtained a very high percentage of satisfactory results.

In asthma and the asthma-hay fever complex it is less frequently possible to demonstrate a true allergy. Skin tests, including the passive transfer, are less frequently positive, and in the same degree their therapeutic efforts have been less satisfactory.

Almost the same conditions apply to urticaria, which has a most varied etiology, and it is only when it can be shown to be a true antibody-antigen reaction that efforts at desensitization are successful.

In that large group of disorders to which the authors have referred as the "Eczematous forms of Dermatitis," we immediately encounter difficulties. Relatively few of the inflammatory dermatoses are truly allergic in origin, even though skin tests are positive. In this category two distinct forms of dermatitis occur—eczema and neurodermatitis. Eczema in general is not regarded as definitely allergic, and it is stated by those most qualified in this regard that no one has ever been able to obtain a positive passive transfer in a true eczema. The patch test is usually positive and of great diagnostic value, but it is probable that this positive test is the result of an altered state of reactivity in the biochemical structure of the skin, particularly in its calcium-potassium ratio which in itself is probably the result of disturbances of nutrition, diet or metabolism, and not to be approached as an allergic problem. Neurodermatitis, on the other hand, is often of true allergic origin. Positive skin tests, including the passive transfer, can be obtained and are of great value in determining the exciting cause.

Of the other dermatoses mentioned, the majority are not of allergic origin and positive skin tests if present are not only inconclusive but very apt to be misleading.

Paul Hildebrand, M.D., Brush: I should like to comment on five cases of actual application of proteose, three in eczema and two in migraine, with perfect results in one case of migraine and perfectly negative results in another case. In three cases of eczema, two of which were generalized, those cases responded completely and the other very satisfactorily. In one case I can produce, by increasing the injection a billionth dilution, a recurrence. In another case, increasing or decreasing it even in larger amounts will not make any difference. Then I had one case of eczema just on the hand, with a complete remission of symptoms. The case of migraine which did not respond I thought was perhaps due to the fact that the proteose was not kept refrigerated and was kept about six months before it was used.

George Piness, M.D., Los Angeles, Calif.: Allergy is not an antigen-antibody reaction. I think that if the first discussant went into the subject a little more thoroughly he'd find he is not dealing with immunological problems, primarily, although we fall in the line of immunological workers. Consider the question of results in proteose therapy: In the first place, the results that have been reported by Dr. Whitehead are quite in accord with the results of those reported by the conservative workers and if you actually take Dr. Whitehead's figures and go over them carefully and give them sufficient

thought and time, you will find that his results are practically negative. He promises you nothing; he tells you definitely in his papers that in all of these cases the desensitization was not sustained. My contention about this piece of work is that in those cases where skin reactions were obtained it is very possible that a specific antigen may have been isolated from the urine. I am not so sure of that, however. In our own experience with a smaller series of cases, we have not been able to get positive reactions. In a recent paper that came out by Vaughan, which is a paper later than the one reported by Dr. Whitehead's co-worker, he too, reported negative results. In fact, all American workers to date with the exception of Mills and Martin have reported negative results with proteose and their report may be discounted. I happen to know the workers personally and that in 1927 those same workers reported a series of forty-four cases of a similar group of diseases in which they got equally good results, and they were all etiologically due to amebiasis. So one must take those things into consideration, too. The heterogeneous results from the use of heterogeneous proteose was nothing but non-specific protein reaction and the same thing happens many times when patients are treated with mixed or stock respiratory or other vaccines. I don't think there is anything specific in that particular report.

When we get back to the research that is being done in London, they there are having a controversy of their own. Fleming, working in the same hospital with Oriol and Barber, reports negative results with the same proteose on perhaps the same patients. Why, I don't know.

As to the question of passive transfer brought up by the first discussant, I want to say that passive transfer has a place but it is not the specific method of determining sensitivity in an individual, and I think that a positive Prausnitz-Kustner can be shown to this gentleman any time he'd like to come to Los Angeles, on as many eczematous individuals as I can arrange to get for him, particularly in the youngsters under one year of age where the skin is not responsible to skin reactions.

Wm. H. Mast, M.D., Pueblo: I have used proteose in eight cases of seasonal uncomplicated hay fever with 100 per cent relief. In four of these cases I used the heterogeneous proteose. Two cases were treated last season. In one case his relief this year was 100 per cent and in the other case the relief was about 80 per cent. In five cases of hay fever and asthma occurring together, in four cases the hay fever was completely relieved; in two cases the asthma was completely relieved. In two other cases the asthma was relieved about 80 per cent and in one case neither the hay fever nor the asthma was relieved at all. In fact, the asthma was aggravated. In one case of hay fever, asthma and eczema occurring together, the hay fever was relieved practically 100 per cent, the asthma was completely relieved and the eczema was relieved about 80 per cent. Two cases of vasomotor rhinitis obtained complete relief.

The main deductions from this very small series of cases that I observed were that the skin test, the intradermal or scratch test, was unreliable and very difficult to interpret, often a skin test giving a severe focal reaction.

The use of proteose in hay fever apparently gives more satisfactory results than in any of the other allergic conditions. In asthma the application of the proteose is uncertain and compli-

cated by secondary infection. The proteose frequently has to be made up on a patient several times during the season due to the change in the allergic factors, such as the seasonal change in the pollen.

Dr. Whitehead (Closing): We have avoided stating definitely what the substances are that we are getting from the urine and just how they act. The method of preparation of the proteose is a physico-chemical one and by it we obtain all substances which are present in a colloidal form. That which we obtain is therefore not a pure substance, but a mixture of toxic products and I believe it frequently contains the allergen to which the individual is sensitive, or a breakdown product of it. Further study of this question may give information on the etiology of allergic conditions. We may find that an individual is allergic because he lacks certain enzymes which in the normal individual are capable of breaking down the proteins which he has ingested.

Dr. Piness mentioned that allergy is not an antigen-antibody reaction. If we consider that allergy is due to a specific type of sensitization, involving a specific type of antibody (the atopic reagent of Coca) and this is found closely attached to the body cells, then we will probably be unable to demonstrate these antibodies in the blood.

It has been stated that our results are practically negative. I think that we have demonstrated that certain of our results are positive and that they are obtained in the specific allergic conditions. Why the results are positive is another question which we are not prepared to discuss, because we lack specific information relative to it. It has been said that negative results have been obtained by practically all American workers. This is not entirely the case. Eichenlaub has secured rather satisfactory results in certain skin cases and Watson has reported fair results in a small series of seasonal hay fever cases.

Dr. Mast has found that certain cases of hay fever with asthma may have the asthmatic symptoms aggravated by proteose administration. We have found this to occur fairly frequently and when it does, it is an indication that the dose should be reduced considerably. When this is done, oftentimes the asthma will be relieved and hay fever will not.

In a paper in the *Journal of Laboratory and Clinical Medicine* of December last year, Warren Vaughn reviews the history of pollen therapy. He points out that the method has been in use for some twenty years; in the early days this method of therapy gave very mediocre results and it required at least ten years of study before this method was developed to the point where highly satisfactory results can be secured. The true value and limitations of proteose therapy awaits more prolonged study.

Attend the meetings of your County Society—it is the fundamental unit of medical organization and needs your support. And you need the County Society!

The cost of Luminal is approximately \$4.50 per hundred, as compared with \$1.50 for Phenobarbital tablets of the same grainage.

Barbital, when called Veronal, costs 360 per cent more.

CASE REPORTS

STAPHYLOCOCCUS BACTEREMIA

REPORT OF A CASE WITH RECOVERY

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There has been a reaction in the past year or two to the point of reasonable skepticism toward bacteriophage therapy^{1,2}. It is natural to expect now the third phase in the establishment of the true value of this agent. Almost every newly introduced measure goes through these phases—primary enthusiasm (with exploitation), a healthy conservative reaction, and then a slow appraisal of whatever clinical value there may be remaining.

The following is a case report of influenza pneumonia followed by staphylococcus septicemia, with complete cure—a case in which intravenous bacteriophage therapy was used along with other modes of treatment. These other methods have so almost universally proved futile, and the termination of this case with use of autogenous phage was so dramatic, that we strongly feel that this patient owes his life to bacteriophage.

CASE REPORT

A male college student, aged 21, was seen first on April 24 and gave history of two days' lassitude, weakness, sore throat and aching of almost entire body. There had been some loss of appetite. The following day he had temperature of 101°. He was seen by a physician and was placed on complete bed rest, fluids, and salicylates. On the 25th he took his temperature and, thinking that it was practically normal, went for about a half-hour walk in a chilly wind. On returning the above symptoms were aggravated and he noticed a sharp pain, worse on breathing, at the left lower costal margin and a similar pain about the left nipple. Physical examination the preceding day had disclosed a few coarse distant rales in the region of the right nipple. On April 25 these were not in evidence. On April 26 he was seen again with temperature of about 102° and was sent to the hospital where examination was negative except for temperature of 100°, injected conjunctivae, and sore congested pharynx. Tonsils were moderately enlarged. Breathing was slightly rapid. Pulse was 90. Blood pressure was 115/80. That evening at 8:00 o'clock, temperature had risen to 103°. Early the next morning he had rather a severe chill, temperature to 105.4°, following which he had profuse diaphoresis. He was somewhat cyanotic and breathing more rapidly. His abdomen was slightly dis-

*This case was treated in collaboration with Dr. O. M. Gilbert.

tended. There were a few subcrepitant rales in the region of the right nipple extending slightly into the axilla. There was slightly impaired resonance about the lower scapular region with very slight suppression of breath sounds and increased whispered voice. In the left axilla there were similar signs though less marked. He was given steam inhalations and mustard plasters. Occasional small doses of aspirin were given for relief of headache. On April 28 there was definite pleural rub and consolidation in the right scapular region and axilla. There was slight consolidation about the left lung root. He appeared decidedly more toxic. At 4:00 o'clock that day the temperature took a sudden drop to 99.2° and returned to about 102° to 104° where it remained with some daily variation for the next four weeks. During the next few weeks the patient was kept on fairly large doses of digitalis and was given frequent subcutaneous injections of caffeine sodium-benzoate. Glucose (25 per cent) was given daily intravenously with saline, and glucose was given by proctoclysis (2½ per cent) for a short period of time. On April 29 he seemed decidedly more toxic and cyanotic and the oxygen tent was applied as frequently as the patient could tolerate it. In spite of the patient's protestations it afforded relief of cyanosis. On April 30 the cough was very spasmodic, largely unproductive, though occasionally producing small amounts of stringy, dark, bloody, mucopurulent sputum. The pulse was fairly strong with a rate of 120 to 126 where it remained during the next few days. The patient was slightly delirious, perspiring freely, and taking fluids very poorly. There was a suggestion of a to and fro rub over the precordium. Apex of the heart was 2 cm. outside of the midclavicular line. The abdomen was markedly distended, being partially relieved by colon tube, poultices, and pituitrin hypodermically. Lung signs became more extensive, especially on the right. On May 2 he appeared somewhat better, being less cyanotic, less delirious and breathing more easily. There was increasing dullness over the base of the right lung, though breath sounds came through almost normally with moderate number of coarse rales. During the next few days this dullness increased almost to flatness but the breath sounds remained about the same, and x-rays at no time gave evidence of effusion. X-ray also revealed heart slightly enlarged, coarse mottling throughout the right lung most marked out from hilus one-half way to periphery, first to third ribs, with a suggestion of slight softening near the hilus, second to third ribs. Diaphragm was high. Left lung showed finely mottled infiltration throughout, most marked first to fifth ribs. Diaphragm, smooth and angle clear. At this time there was noted a slight soft systolic murmur over the base, not transmitted. On May 5 his condition appeared considerably worse with more evidence of toxemia and on May 8 there was a definite though slight icteric tint to the sclerae. There was some tenderness in the region of the gall bladder. Heart, slightly irregular with more marked systolic murmur; the beats came through irregularly on taking the blood pressure. It was 128-115/65. There were first noted on May 10 small painful nodules in the skin, including one on the occiput. From the irregular spiking type of temperature, icterus, and a tendency to repeated chills and sweats, it was felt that the patient probably had a blood stream infection. The next day the blood culture was taken and revealed pure staphylococcus aureus; three subsequent blood cultures confirmed this. May 12 he was given a blood transfusion of 175 c.c. by direct

method. On May 13 we decided to give him gradually increasing doses of mercurochrome intravenously and he was given 3 c.c. of 1 per cent solution. The following day 5 c.c. were given and on May 16 he was given the second transfusion of 250 c.c. Nineteen donors were tested and found incompatible. The cells of the blood of two of these donors were not agglutinated by the patient's serum, though their serum did agglutinate the patient's cells. These two donors were each used twice for subsequent transfusions, between thirty and forty minutes being allowed for the citrated blood to run in. A rather severe chill was experienced only after one of these transfusions, the fourth. They varied in quantity from 250 to 450 c.c. and were given on May 12, 16, 21, 27, and June 28. No appreciable change in the temperature course was noted following these transfusions. Mercurochrome injections were continued at three or four day intervals, using 8 to 10 c.c. of 1 per cent solution. Two injections of gentian violet were given intravenously. May 18 the left lung was showing definite evidence of clearing, the right only slightly. The heart sounds remained of poor quality and the pulse was thready and rapid. On May 21 a large fluctuant mass the size of a walnut on the anterior surface of the right thigh was incised and a pure culture of staphylococcus aureus obtained. A smaller abscess over the right occiput was opened and drained as was another on the right arm. Four other firm skin nodules were noted in various places but never reached a point where incision was considered justifiable; they gradually receded.

During the latter part of May the temperature course assumed a more typical septic swing, rising and falling daily between 99° and 103°. About June 1 it was decided that we were making no progress and we considered the use of intravenous bacteriophage therapy as outlined by MacNeal in the J. A. M. A., October 1, 1932. This had been considered two or three weeks earlier, but had been given up as impracticable because of the lack of availability of the 'phage and the time it was felt would be required for its preparation. However, on June 3 a night letter was sent to Dr. MacNeal. A telegram was immediately received stating that the bacteriophage was on its way by air mail. This was a polyvalent stock bacteriophage for staphylococcus aureus. Five c.c. of the 1 to 10 dilution was given intravenously followed hourly by 1, 2, 4, and 8 c.c. of the undiluted 'phage. It was recommended that this be given in increasing doses until a sharp thermal reaction or chill ensued. This was difficult to estimate, as the preceding day the patient's temperature had risen to 105.6° with a sharp drop to 97° and a subsequent rise to 104° at the time therapy was begun. Four hours after the injection of 8 c.c. he had a slight chill and the temperature again dropped to 97° with a drop in pulse from 138 to 90. (This pulse-temperature relationship persisted throughout the disease, although for many days the pulse stayed between 130 and 140.) About noon the following day he was given 2.5 c.c. of bacteriophage with the temperature rising to 104.8°, dropping to 98°. The next morning, June 7, he was given 1 c.c.; that evening, 2 c.c. On June 8 he was given 4 c.c. at 9:00 a. m., 8 c.c. at 11:00 a. m. and again at 1:30 p. m. His temperature at midnight was 103.6°. It was 98.6° at noon the following day, although at 7:30 a. m. he had received 5 c.c. of the 'phage. At 12:45 that day he was given 10 c.c. of metaphen intravenously and that afternoon his temperature reached only 102.6°. On June

10 he was given 2 c.c. of 'phage at 8:45 a. m. and 10 c.c. of metaphen intravenously at 5:00 p. m. The highest temperature that day was 101.6°. On June 11 he was given 2 c.c. of 'phage at 9:00 a. m.; that night his highest temperature was 102.6°. June 12 he was given no 'phage, but received 10 c.c. of metaphen intravenously. His highest temperature was 102°, although at 4:00 a. m. June 13 it was 102.8°. The metaphen was repeated on June 15 and June 17.

During this time a gradual enlargement was noted in the region of the liver and x-rays indicated that his diaphragm was rising slightly. The spleen became palpable and gradually increased to where it could be distinctly felt 3 cm. below the costal margin. It was at no time tender. On June 13 there was noted slight general improvement with some clearing of signs in the lungs but with development of tenderness in the right costovertebral angle. On June 17 he again appeared worse, with the pulse high and of poor quality. He was given urotropin and sodium acid phosphate alternating with methylene blue by mouth for several days with no marked diminution in the pus cells observed in the urine. He was seen on June 18 by a consultant who felt that there was undoubtedly a septic focus somewhere in the abdomen—most likely in the right kidney region. There was a splitting of heart sounds at the base. The daily use of intravenous hexamethylenamin in doses of 20 to 32 grains was recommended and was given during the next few days. The urine continued to show many pus cells although at no time were there typical symptoms of pyelitis. The costovertebral tenderness gradually cleared, but the temperature course remained unchanged, as did the leukocyte count. (His leukocytes had remained at a low level during the first week of illness—seven to ten thousand, with a high neutrophile proportion. They gradually rose and fluctuated between twenty to thirty-five thousand until recovery. There was always a marked shift to the left.) On June 25 he was delirious. The heart showed a rough systolic murmur at the base (somewhat suggestive of a pericardial rub). About this time the patient had numerous copious nose bleeds which were stopped only by adrenalin packs. The hemoglobin dropped rapidly to about 45 and this necessitated the transfusion of 450 c.c. which was given on June 28. On June 30 he was given 6 c.c. of stock bacteriophage. The use of iron, quinin and strychnin tablets three times a day was instituted. On July 9 his general condition seemed slightly better. He was given a few daily intravenous injections of iron and arsenic compound (Ferro-arsen).

About June 28 cultures from the blood stream and the leg abscess were sent to Dr. MacNeal who immediately reported that this organism was fully susceptible to the stock bacteriophage which we had been using. However, an autogenous 'phage was isolated and put through serial transplantations to increase its virulence. We received this on July 10 and administered 2 c.c. This was almost immediately followed by a severe shaking chill lasting 35 minutes, followed by profuse perspiration and a drop in temperature from 102° to 96.2°. For the preceding six days his temperature had not failed to reach 103°. On July 11 he was given 0.6 c.c. of 'phage at 3:00 p. m. with a previous high that day of 100.8°. At 8:00 p. m. his temperature was 99.8° but by midnight had reached 103.8°, dropping the next morning to 99.6°. He experienced no chill although he had chilly sensations and profuse perspiration. On July 12 after the administration of the same dose

(0.6 c.c.) he again had a chill. At 4:00 a. m. his temperature rose to 103.6°; at 5:00 p. m. that day he was given 0.6 c.c. of 'phage and on the 14th 0.9 c.c. and the same dose on July 15. On the latter day we used a second shipment of autogenous 'phage which was apparently more potent than that previously used. The patient had a severe chill lasting thirty-three minutes, became quite cyanotic and was gasping for breath. He soon quieted down with a grain of codein by mouth. The temperature dropped from 103° to 96.4° but on the following day, with no therapy, it did not go above 101.6°. Because of this severe reaction it was thought best to stop the treatment for awhile. On July 17 his temperature reached 102.2° after the administration of 0.1 c.c. On the following day his temperature did not go over 100°. On July 21 the dose was repeated. From this point on the temperature curve showed steady daily decline and after July 24 it failed to go above 100° up to the time of his discharge from the hospital on July 30. Doses of 0.2 c.c. of 'phage were given on July 24, 25, and 28.

It has been observed that occasionally during bacteriophage therapy patients will have extreme anorexia. This was true of the patient until about July 12 when his appetite improved remarkably, until at the time of discharge he was eating three large meals a day. Needless to say he had suffered great emaciation and weight loss during the course of his illness.

After reaching home on July 30 his temperature did not go above 98.6°. On August 5 he was sitting up in a chair free from all symptoms except weakness and extremely ravenous appetite.

The nature of bacteriophage, its mode of action, specificity, and the factors favoring or hindering its activity have been well outlined in recent literature³. With regard to intravenous use of the 'phage there is good evidence^{4,5} that an additional factor comes into play—a markedly increased phagocytic activity of leukocytes and cells of the reticulo-endothelial system. The nature of this reaction has no more been explained than the commonly observed lysis of bacteria by their specific 'phages. There is one interesting historical allusion to what is almost certainly an example of bacteriophage action that was called to our attention by Dr. Dorothy Harpham. It is found in Mark Twain's "Following the Equator."⁶

"A word further concerning the nasty but all-purifying Ganges water. When we went to Agra, by and by, we happened there just in time to be in at the birth of a marvel—a memorable scientific discovery—the discovery that in certain ways the foul and derided Ganges water is the most puissant purifier in the world! This curious fact, as I have said, had just been added to the treasury of modern science. It had long

been noted as a strange thing that while Benares is often afflicted with the cholera she does not spread it beyond her borders. This could not be accounted for. Mr. Henkin, the scientist in the employ of the government of Agra, concluded to examine the water. He went to Benares and made his tests. He got water at the mouths of the sewers where they empty into the river at the bathing ghats; a cubic centimeter of it contained millions of germs; at the end of six hours they were all dead. He caught a floating corpse, towed it to the shore, and from beside it he dipped up water that was swarming with cholera germs; at the end of six hours they were all dead. He added swarm after swarm of cholera germs to this water; within the six hours they always died, to the last sample. Repeatedly, he took pure well water which was barren of animal life, and put into it a few cholera germs; they always began to propagate at once, and always within six hours they swarmed—and were numberable by millions upon millions."

In his article in the *J. A. M. A.*, Oct. 1, 1932, MacNeal states: "Our experience previous to 1929 with patients giving two successive positive staphylococcus blood cultures, has been extremely uniform. All had died. There are reports of recoveries in the literature, but such recoveries may justly be said to have been sporadic." One of these sporadic cases without specific therapy is reported by Thomas⁷.

In our case four successive blood cultures were positive for staphylococcus aureus, followed by three negative ones after treatment, including therapy with stock bacteriophage; there was then a prolonged period of sepsis, with apparently a hidden focus, which finally responded to autogenous 'phage. Complete recovery ensued.

Dr. MacNeal has been the strongest advocate in this country of intravenous bacteriophage therapy^{8,9}. It was with bacteriophage prepared in his laboratories at the New York Post-Graduate Hospital that this case was treated. Unfortunately the first marked improvement noted in this patient's condition, following therapy with the 'phage, was shortly followed by the use of metaphen

intravenously (which is undoubtedly giving considerable encouragement in treatment of septicemias). We say unfortunately only from the standpoint of trying to prove the case for specific therapy. We are unable to state to what degree the metaphen assisted in clearing the blood stream. But we may say that the patient seemed better and his temperature was lower before the use of metaphen was instituted.

Learmouth and Moersch¹⁰ report a case with multiple pyemic abscesses including a septic clot in the lateral sinus and a lung abscess. This patient's recovery was felt by the physicians in charge to be at least partially due to the use of intravenous bacteriophage.

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- ⁹MacNeal, Ward J.: *The Use of Bacteriophage in Wound Infections and in Bacteremias*. *Amer. Jour. of Med. Sciences*, Vol. 184, No. 6: 805 (Dec.), 1932.
- ¹⁰Learmouth, J. R., Moersch, H. J.: *Recovery From Staphylococcus Pyemia; Report of a Case*. *Proc. of Staff Meetings of Mayo Clinic*, Vol. 7, No. 32 (Aug. 10), 1932.

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PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

"The American Child" for October, 1933, Summarizes the Effects of Child Labor Under the N. R. A.

Among the first thirty industrial codes approved, only two allowed the employment of children under 16 years of age under any circumstances—theaters and certain phases of the coal mining industry.

Age Minima in Approved Codes—Straight 16-Year Minimum

Artificial flowers and feathers.
Automobile.
Corset and brassiere.
Cotton textile.
Electrical manufacturing.
Fishing tackle.
Hosiery.
Iron and steel.
Lace manufacturing.
Leather.
Linoleum and felt base.
Men's clothing.
Motion picture laboratory.
Oil burners.
Petroleum.
Photographic manufacturing
Rayon and synthetic yarns.
Shipbuilding and ship repair.
Textile bag.
Transit industry.
Underwear manufacturing.
Wall paper manufacturing.
Wool textile.

Modifications

Cast iron soil pipes—18, hazardous foundry operations.

Coal, bituminous—17, underground and for hazardous employment above ground; no general minimum.

Coat and suit—18, manufacturing employees.

Gasoline pumps—18, on metal working machines.

Lumber—18, except boys over 16 in non-hazardous occupations, during school vacations, or if no wage-earners over 18 in family.

Salt producing—21, underground in mines.

Theatrical (legitimate)—No age minimum for child actors.

cated by Dr. Aaron Learner of the University of Illinois College of Medicine in an address before the American Association of Museums. There is in the world today only one health museum on a large scale designed for the general public, Dr. Learner said. This is the Deutsch Hygienische Museum in Dresden. The United States has medical museums, but these are generally technical and of interest chiefly to physicians and nurses.

It would be of benefit, Doctor Learner pointed out, to have a well-planned museum of health to which students and teachers could come for guidance in public health education problems. A health museum, he added, would not infringe on the private physician, but would merely make the layman more capable of cooperating intelligently with the physician and the public health worker in guarding health. A museum of this sort would not be an extravagance even in times such as this, Doctor Learner declared, pointing out its far-reaching usefulness.

Chicago Sets a Record for Health in 1933—

Death Rate Lowest in City's History

This year has been Chicago's healthiest, with the lowest death rate in the history of the city, Dr. Herman N. Bundesen, president of the board of health, disclosed yesterday in his annual report to Mayor Kelly. The 1933 death rate from all causes was 9.5 per thousand inhabitants. The previous low level, set in 1932, was 9.75 per thousand. Dr. Bundesen pointed out that the 1933 record is more remarkable in view of the fact that the summer saw some 7,500,000 visitors in the city for the World's Fair.

The birth rate, however, fell faster than the death rate. It was 12.5 per thousand in 1933, as against 14 per thousand last year. The depression, which caused a sharp decrease in marriages during the last three years, is to blame, Dr. Bundesen said. But babies had a better chance of life during their first year than ever before in the history of the city. The death rate for children under 11 months old was 50 per thou-

Health Museum Proposed for United States

Establishment of one or more health museums to teach the public facts that every one should know about health was advo-

sand, a slight decrease below the previous record set in 1932.

Chicago ranked third, behind Milwaukee and Detroit, in the health conservation contest conducted among the cities of the country by the United States Chamber of Commerce. The contest considered health work done by private as well as public agencies. The contest disclosed that the two things which Chicago needs most to attain a higher rank are increased vaccination against smallpox and improved nursing service.

"The success of the board of health in combating communicable diseases is well illustrated," stated Dr. Bundesen, "by the change in the principal causes of death between the present time and the time when Chicago's first reliable health statistics were compiled. Tuberculosis alone remains among the ten principal causes at that early date, and its mortality has been reduced greatly."

The campaign for the immunization of children against diphtheria, continued in 1933, was marked with a remarkable decrease of mortality from that disease. This year saw only nine deaths from diphtheria, as compared to 68 in 1932, 216 in 1931, and 411 in 1930. Chicago for several years has had the lowest typhoid fever death rate of any large city in the world. There were but eleven deaths from the disease this year, breaking a previous record of thirteen deaths set in 1931.

The Chances of Dying From Diabetes

Diabetes today presents a serious and growing public health problem. Nothing illustrates this better than the probability of dying from the disease, based on recent mortality rates as compared with probabilities based on death rates in earlier years. Under present conditions 15 out of every 1000 white males born will eventually die of diabetes and 27 out of every 1000 white females born. These probabilities are based on the 1930 death-rates. Only ten years before that the probability at birth of eventually dying from diabetes was 13 in 1000 for white males and 18 for white females.

On the whole, however, the present situ-

ation in diabetes should not cause us to despair. So far as its increasing mortality is concerned, the problem is a very circumscribed one. It is one of controlling the disease in older people, chiefly among women. To some extent, the increase at these older ages need not surprise us. Insulin does not cure diabetes. It does, however, prolong lives of diabetics; so much so, that most of them reach ages at which they succumb, much as do other old persons, to the diseases typical of later life—heart disease, nephritis, arteriosclerosis and cerebral hemorrhage.

There are many things we can do to improve this diabetes situation. There are too many premature deaths from coma. We can postpone death from cardiovascular degeneration to a much greater extent than we have succeeded in doing. There are even today large numbers of cases which are not diagnosed as early as they should be.—From Statistical Bulletin, Metropolitan Life Insurance Co., April, 1933.

For Students of Epidemiology

Measles in New York City has usually recurred in cycles of two years, though recently there has been some change in this respect. The incidence curves of influenza and poliomyelitis stand out in strong contrast to those of the three diseases just mentioned. In the case of influenza the curve always has a very narrow base. As a rule the number of cases rises sharply, reaching a peak after about three weeks and declining just as abruptly. In poliomyelitis the base is somewhat broader, but in epidemic years the rise and fall are about equally abrupt.

In both measles and poliomyelitis the infection is caused by a filterable virus—yet the two diseases have markedly different incidence curves. Influenza, too, is regarded by many observers as probably caused by a filterable virus. Its incidence curve is striking, but in strong contrast to that of measles.—From City of New York Department of Health Bulletin, Volume I, No. 3, 1933.

Methenamine, when called Urotropin, costs 300 per cent more.

BOOK REVIEWS

Society and the Natural Law. By Henry Sewall, Ph.D., M.D., Sc.D. Cloth. 12 mo., 80 pages. Boston: Gorham Press, 1933.

Scientists are engaged in tracing effects to causes, and physicians are continually seeking methods of promoting human welfare. The continual discussion of the distress caused by social maladjustments must recently have turned the thoughts of many physicians to social prevention. It was natural that a physiologist and veteran teacher of medicine, who had taken an active part in the struggle of civilized society with tuberculosis, should be impressed with the results of business depression and wish to point out its causes and the reasonable path open to its cure and prevention. This book demonstrates its author's alertness to scientific facts and his human sympathy.

He emphasises the likeness between the development of the single cell, seeking only food for itself, into the many celled animal governed by the need for every cell to work for the general good of the entire organism, and the progress of the single savage man, defending only himself and his family, to the civilized society in which each human unit must work for the good of the whole social organism. He urges that in the community, as in the physical body, there is the same need for reaching a balance of the "individual urge of selfishness with a regulative and inhibiting force of altruism."

It seems reasonable to hope that the example set by this teacher and leader of the medical profession will inspire those who know the truths of physiology and biology, and who have the attitude of service to their patients and communities, to urge the extension of preventive medicine into the field of social and political organization. It is a time when the wise, unselfish guide in practical social hygiene is more needed than the economic theorizer.

EDWARD JACKSON.

The Pregnant Woman. By Porter Brown, M.D. New York: Eugenics Publishing Company, Inc. 1933. Price \$2.00.

It is unusual that a book on such a subject can be recommended without qualifications and with enthusiasm, but this is the exception. With skill and scientific accuracy the author explains and instructs his readers. Superstitions and popular notions are shown in their true light. Furthermore, Dr. Brown is reminding his readers of the necessity of consulting her physician; one might say he instructs her to consult her physician intelligently.

Here is one of many well done paragraphs and a sample of the common sense that characterizes this book:

"Fruit and vegetables are good foods, but here we wish to sound a warning concerning the present faddism about their use. We refer to the prevalent, exaggerated idea about bran and coarse, raw, cellular vegetables as cabbage, turnips, spinach and celery. Bran and the fibrous frame of vegetables of coarse variety have nothing except bulk, which is comparable to sawdust and excelsior. . . . Pregnant women must learn to supply their needs and not indulge in abnormal appetites to the point of packing the canal so full that it is dilated with bran and cellular vege-

tables. Meat is eliminated almost completely by this faddism, which is a mistake. The sort of diet to be preferred should contain all classes of food elements in the easiest digestible form. This is classified by most authorities as a smooth diet. People who eat a smooth diet have a stomach and colon which are less than half the size of those packed by the rough, coarse raw foods and they surely have less gas and much less irritation."

GERRIT HEUSINKVELD.

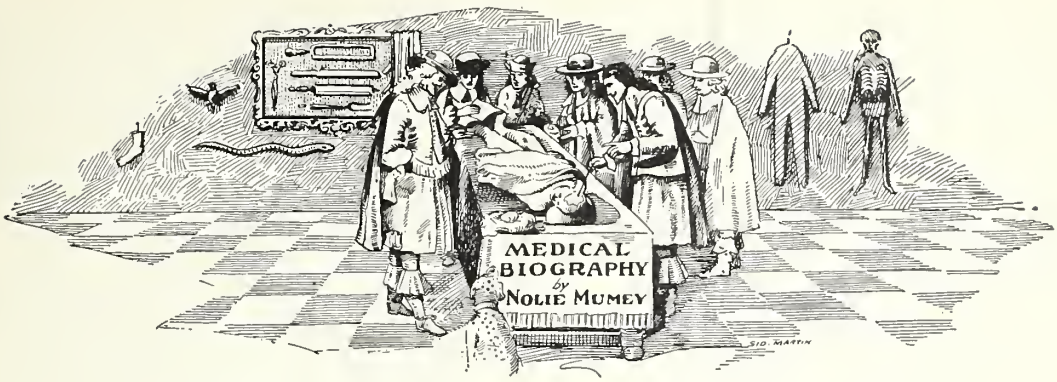
The Medical Clinics of North America. (Issued serially, one number every other month). Volume 17, Number 2. (Chicago Number, September, 1933). Per Clinic Year, July, 1933, to May, 1934. Paper, \$12.00; Cloth, \$16.00 Net. Philadelphia and London: W. B. Saunders Company, 1933.

The chief feature of this number of the clinics is a symposium on blood dyscrasias which includes The Leukemic States, Agranulocytosis, Hemophilia, Polycythemia, and Aplastic Anemia. There is a practical article on Influenza, and a very comprehensive one on the Early Diagnosis of Poliomyelitis in which the signs and symptoms are discussed in detail. A variety of subjects are presented with the usual case reports: Cholecystography in Jaundice, Cinchophen Poisoning, Ulcerative Colitis, two clinics on Heart Disease and Tuberculosis of the Skin. These clinics present the latest developments and the newer trends in internal medicine and are of interest to all physicians but especially to internists.

LORENZ W. FRANK.

Insurance companies cannot compete against the local medical societies in this matter of medical care. The most conservative insurance schemes must allow nearly 50 per cent for promotion and administration. Physicians if they wish can eliminate the expenses of these middle men. Just as industrial life insurance costs approximately two and a half times that of ordinary life insurance so medical care provided for by private insurance schemes must cost approximately two times more than that furnished by county societies.—Phi Rho Sigma Journal.

It is neither expected nor desired that in a group of intelligent people with individual backgrounds, individual temperaments, and individual outlooks on life there shall be a unity of thought and a uniformity of sentiment on as complex a problem as the modern practice of medicine . . . Ways and means must be elaborated whereby the control of the practice shall be retained by the physician and not relegated to profit-seeking influences. — Bulletin, Omaha - Douglas County Medical Society.



SILAS WEIR MITCHELL

(Continued from December Issue)

Dr. Mitchell's vividness of description is well illustrated in the following poem:

LINES TO A DESERTED STUDY

Hush! Feel ye not around us teem
The shapes that haunted Goethe's dream?
When lifted genius mused apart,
And taste inspired the soul of art;
Young first Love, coy with trembling wings,
And Hope, the lark that soaring sings,
And boyhood friendships prone to fade
Through pleasant zones of sun and shade;
With many a phantom born of youth,
The trust in honor, faith, and truth
That fails in after years;
The perfect pearls of life's young dream
Dissolved in manhood's tears.
Through Time's swift loom our joys and griefs
In braided strands together run;
To weave about this world of ours
Wild tapestries of shade and sun.
And seems it not as if tonight,
Dear, dusty, many-memored room,
Our souls had lost the threads of light,
And like the eve kept gathering gloom?
Ay, and for one of us the hour
Must have, methinks, a double power,
As backwards turn his saddened look,
To view again those many scenes,
When life was like an uncut book,
And Joy was in her rosy teens,
Yes, even we who later knew
The home of friendship and of taste,
Stand saddened by the parting view
Of scenes by recollection graced.
Ah, there the books looked meekly out
Above an alligator's snout;
And bugs and fossils, birds and bones,
Round-shouldered bottles, jars, and stones,
Stood up in order sage,—
Memorials they of every clime,
Remains of every age.
Oh, yes, 'twas here at eventide
We lingered by the table's side,
While Wit her lightning stories told,
And through Havana's clouds of gold
The thunder-storm of laughter rolled,

Till Mirth her very contrast brought,
And drooped the brow in earnest thought;
While tranced we sat, as now we sit,
And fast the parting time draws near,
And these stained walls seem gathering grace
As if to grow more doubly dear;
And not an ink-mark on the boards
But wears a half-appealing look.
The mottled wall, the naked floor,
I read them as ye read a book,—
As if they something had to say,
And sought but could not find a way;
As often 'mid the waning year,
In brown-checked autumn's bowers,
The leaves ye tread seem rustling low,—
Tread gently, we were flowers.

His verses range from short stanzas to long forceful dramatic poems, such as "Francis Drake," a tragedy of the sea, (time, 1578), 44 pages in length; "Philip Vernon," (a plot from the year 1588); "Responsibility;" "Wind and Sea" (scene laid on the New Jersey Coast); "The Shriving of Guinevere;" "The Swan Woman" (a legend of the Tyrol); "A Medal;" "The Huguenot" (plot laid in 1886); "How Lancelot Came to the Nunnery in Search of the Queen;" "The Hill of Stones" (a legend of Fontainebleau); "The Cup of Youth" (a poetic play laid in three scenes: 1. On an Italian beach in moonlight, 2. In a garden of a villa near the sea, 3. At the door of an astrologer's laboratory.); "My Lady of the Roses;" "How the Poet for an Hour Was King;" "The Violin" (the plot was laid in Tyrol about 1750); "Francois Villon" (time, about 1463, the title hero is the well-known poet and vagabond); "The Miser: A Masque" (scene laid in the 15th century); "The Wager" (scene laid near Tours in a Duke's garden, 1650); "Barabbas" (one act Biblical play laid in the city of Bethlehem).

(To Be Continued)

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

C. W. A.—F. E. R. A.— Inform Yourselves!

FOR more than two months your State Society officers and Committee on Medical Economics have conducted an intensive campaign with one goal in view—to see that procedures being carried out under the Civil Works Administration and the Federal Emergency Relief Administration as part of the "New Deal" will mean also a "Square Deal" for practicing physicians.

Even if it were proper and expedient (it is neither) to publish in detail the mass of correspondence, the scores of telegrams and long-distance telephone calls, the minutes of dozens of meetings and conferences that have had to do with this situation, space in *Colorado Medicine* would not be sufficient even if a whole issue were devoted to the one subject. There are other, and better, ways for each member of the Society to inform himself.

The President and Secretary of each county and district medical society have received frequent bulletins from the Executive Office outlining developments. Recently each local society was asked to hold an immediate special meeting if no regular one was scheduled. If you did not attend, see the President or Secretary of your Society at once. It is important. It means cash to physicians to be accurately informed of the new plans of the federal government and the medical societies for caring for the indigent, and for treating the injuries and occupational diseases occurring among C.W.A. employees.

The American Medical Association is in touch daily with every new development and is informing State Society Secretaries of each change of policy, each point gained or lost, in Washington. Your State Society and the A.M.A. have been working hand-in-hand to protect the practicing physician and to advance his interests. The *Journal* of the A.M.A. has carried special articles on these subjects almost every week, including all that could logically be published concerning the A.M.A. work and the developments in Washington. The situation as it exists at the time we go to press is well presented in an article in the *Journal* A.M.A. of January 13, 1934, page 136. Every member should read it.

There never was a time when it was so important to be a member of the medical society. So many physicians now realize this (and wish that they had been better organized months ago) that as we go to press meetings are under call to

organize two new district medical societies in Colorado covering counties previously unorganized. More may follow.

Members—please remember, now and henceforth, that it is both physically and politically impossible for the State Society to publish all the information that you should have had on these federal matters. Funds do not permit sending form letters to every member. The President and Secretary of each local Society will be kept posted on all important developments. See them. Attend your county society meetings. Keep your membership in force continually. Get every eligible man into your society, both for his sake and for the protection of all.

Committee Believes State Has Enough Hospitals

COLORADO has enough, if not too many, hospitals and hospital beds, in the belief of the Committee on Medical Economics of our State Society.

Convinced of this by studies made over several years, the Committee on January 3, 1934, adopted a strong resolution which the Committeemen hope will dissuade members of the profession and hospital administrators from further expansion until definite need for expansion is shown. The Committee so drew the resolution that the Board of Trustees of the Society could add its confirmation if it saw fit and thus place the Society as such on record. This the Board of Trustees did, at its regular quarterly meeting.

The resolution is self-explanatory, and is here reproduced in full:

RESOLUTION

Adopted by the Committee on Medical Economics, January 3, 1934; confirmed for the Society by the Board of Trustees, January 9, 1934.

WHEREAS, It is a matter of common knowledge that the bed occupancy of hospitals, sanatoria and related institutions in the State of Colorado is and has been for several years far below the bed capacity of these institutions, and

WHEREAS, It is also a matter of common knowledge that the construction of bed capacity of hospitals, sanatoria and related institutions beyond the actual need therefor is an economic blunder and increases the ultimate cost of medical care; therefore

BE IT RESOLVED, By the Committee on Medical Economics, the Board of Trustees concurring: That the Colorado State Medical Society disapproves the construction of any additional hospitals, sanatoria or related institutions, or the construction of additional bed capacity of such existing

institutions, public or private, in the State of Colorado, except where clear necessity therefor is shown to the satisfaction of the Committee on Medical Economics of this Society, and

BE IT FURTHER RESOLVED, That this Resolution be communicated at once to the membership of this Society, to the officers of the American Medical Association, the Colorado Hospital Association, the Colorado Sanatorium Association, and all other known interested parties.



Memorize This—

Sept. 19, 20, 21, 22, 1934

IT IS early to begin planning for the Annual Session in September, but not too early. The Committee on Scientific Work is thinking long in advance, as shown by its questionnaire to all members. Seldom has a committee put forth such effort to learn just what the members want, and to provide just that.

The dates are now officially fixed. The Annual Session will be held Wednesday evening, Thursday, Friday, and Saturday, September 19, 20, 21, and 22, 1934, in Colorado Springs.

Members can begin to do their part by laying early plans to attend, to take part, to offer exhibits. The dates are late enough that summer vacations should not interfere, early enough that school openings should not conflict.

THE ARKANSAS VALLEY MEDICAL ASSOCIATION

Pueblo, March 10, 1934

Preliminary Announcement

The annual meeting of the Arkansas Valley Medical Association will be held in Pueblo Saturday, March 10, 1934, with scientific sessions morning and afternoon and a dinner and entertainment in the evening.

While membership in the Arkansas Valley Medical Association is limited to members of the county medical societies of the Valley in central and southeastern Colorado, all members of the Colorado State Medical Society and the societies of adjoining states are cordially invited to register and attend both the sessions and entertainment of the annual meeting.

The complete program of the meeting will be published in the March, 1934, issue of Colorado Medicine. Tentatively, arrangements include the following speakers:

George Eustermann, Rochester, Minn., on Peptic Ulcer.

Ray M. Balyeat, Oklahoma City, on Allergy Other Than Asthma and Hay Fever.

Gerald B. Webb, Colorado Springs, President of the Colorado State Medical Society.

E. B. Liddle, Colorado Springs, on Treatment of Anterior and Posterior Urethritis and Complications.

Edgar C. Webb, Canon City, on Eye Examinations of School Children.

Josephine Dunlop, Pueblo, on Amebic Dysentery.

T. D. Cunningham, Denver, on Diagnosis of Allergic Manifestations.

George Bancroft, Colorado, on a surgical topic of interest.

KON WYATT,
President.

TUBERCULOSIS ASSOCIATION CONDEMNS STREAM POLLUTION

The following communication has been certified to the office of the State Medical Society by Miss Helen Burke, Secretary of the Colorado State Tuberculosis Association:

"The Colorado State Tuberculosis Association in annual session January 10, 1934, endorses the efforts of the Public Health Committee of the Colorado State Medical Society in its attempt to secure sanitary sewage disposal throughout the state of Colorado. This Association especially condemns the present illegal pollution of streams and rivers by sewage. Apart from the dangers of the pollution of such drinking water, the waters from said streams and rivers are often used to irrigate truck gardens, the vegetables from which are contaminated, causing a high death rate from intestinal diseases in our state."

PACIFIC NORTHWEST ASSOCIATION TO MEET AT SALT LAKE

Members of the Colorado State Medical Society are extended a cordial invitation to attend the next meeting of the Pacific Northwest Medical Association, whose 1934 session will be held in Salt Lake City, Utah, June 21, 22, and 23.

Dr. Leland R. Cowan, Secretary of the Utah State Medical Association, has extended the invitation unofficially to our Society, both on behalf of the Pacific Northwest group and the Utah Association, the annual meetings of both bodies being combined this year.

Coloradans thus have an unusual opportunity to visit with friends of the Northwest, who seldom hold their meetings so close to our State.

COLLEGE OF SURGEONS SECTIONAL MEETING

The sectional meeting of the American College of Surgeons will be held in Salt Lake City on February 28 and March 1, 1934. The Community Health meeting will be held in the evening of February 28 at the Salt Lake Tabernacle. Dr. John J. Galligan of Salt Lake City, Chairman, extends a cordial invitation to all members of the Colorado State Medical Society to attend the sessions.

MEDICAL SOCIETIES

BOULDER COUNTY

The regular meeting of the Boulder County Medical Society was held Thursday, January 11, at the Boulderado Hotel. Dinner was served at 6:30, after which the business meeting was held.

Dr. J. W. Fonda of Longmont was elected to membership.

The following officers were elected for the ensuing year: Dr. G. R. Hageman, president; Dr. H. A. Alexander, vice president; Dr. M. L. Johnson, secretary-treasurer.

M. L. JOHNSON,
Secretary.

DENVER COUNTY

The annual meeting of the Denver County Medical Society was held January 2, in the Auditorium of the Morey Junior High School.

Reports were read by all officers and approved by the Society. Officers for the ensuing year were elected as follows: Dr. W. W. King, president; Dr. W. S. Dennis, vice president; Dr. O. S. Philpott, secretary; Dr. H. W. Stuver, treasurer. There were 130 members present at this meeting.

The second regular meeting of the Society was postponed to Friday evening, January 19, to make the program available to physicians attending the Midwinter Clinics from other cities. Attendance at this meeting was 167.

Members of the society presented the scientific program. Dr. Ward Darley gave a paper on "The Use of Post-pituitary Extract for the Acceleration of Drainage From the Urinary Pelvis." Dr. Roy P. Forbes spoke on "Intestinal Intoxication; A Retrospect of the Changing Treatment and Its Relation to Mortality." Dr. C. F. Kemper presented "The Anterior Pituitary Gland; Newer Concepts in Outline (Illustrated)," and Dr. C. F. Hegner talked on "The Approach to Upper Lobe Pulmonary Cavities."

O. S. PHILPOTT,
Secretary.

* * *

EL PASO COUNTY

The December meeting of the El Paso County Medical Society was held December 13, at the Day Nursery. Officers for 1934 were elected at this meeting as follows: Dr. C. E. Richmond, president; Dr. F. R. Baker, vice president; Dr. Carl S. Gydesen, secretary; Dr. Z. H. McClanahan, treasurer.

CARL S. GYDESEN,
Secretary.

* * *

FREMONT COUNTY

Dr. R. C. Adkinson of Florence was the principal speaker at the regular meeting of the Fremont County Medical Society held in the Municipal Building at Canon City, January 22. Dr. Adkinson spoke on "Artificial Pneumothorax."

Officers were elected at this meeting for the coming year. President, R. C. Adkinson; vice president, J. G. Shoun; secretary-treasurer, A. Bee.

A. BEE,
Secretary.

* * *

LARIMER COUNTY

Dr. D. H. O'Rourke of Denver was the guest speaker at the December meeting of the Larimer County Medical Society held December 6 at the Northern Hotel in Fort Collins.

Officers for 1934 were elected as follows: President, F. A. Betts; vice president, Roy F. Wiest; secretary, Lawrence D. Dickey; treasurer, Olive Dickey.

Dr. T. D. Cunningham of Denver was the guest speaker at the January meeting of the Larimer County Medical Society held at the Loveland Hotel in Loveland, January 3. Doctor Cunningham gave an interesting talk on "Chronic Arthritis."

LAWRENCE D. DICKEY,
Secretary.

MESA COUNTY

Dr. H. S. White of Fruita and Dr. A. G. Taylor of Grand Junction were the principal speakers at the regular meeting of the Mesa County Medical Society held December 19 at the La Court Hotel in Grand Junction.

Officers were elected at this meeting for the ensuing year. President, W. V. Watson of Plateau City; vice president, H. G. Taylor of Canon City; secretary and treasurer, Frank J. McDonough of Grand Junction.

H. M. TUPPER.

* * *

NORTHEAST COLORADO

The Northeast Colorado Medical Society held its annual meeting, banquet and election of officers Thursday evening, January 11. The business meeting was held in the afternoon at the Sterling city hall. Those elected to serve through 1934 are: H. C. Hill, Holyoke, president; J. H. Daniel, Sterling, vice president; E. P. Hummel, Sterling, secretary-treasurer; J. W. Kinzie, Haxtun, and O. J. Schmitt, Sterling, censors; J. W. Kinzie, Haxtun, delegate; J. E. Naugle, Sterling, alternate delegate; C. I. Tripp, J. H. Daniel and J. W. Kinzie, committee on public relations.

Thirty-four members, wives, and guests sat down to dinner. The dinner guests and guest speakers of the evening were Drs. W. W. Haggart, W. S. Dennis, F. E. Diemer, John S. Bouslog, and Mr. Harvey T. Sethman from Denver, and Dr. N. A. Madler from Greeley, the latter three being officers of the Colorado State Medical Society who addressed the meeting briefly on organizational matters.

After dinner Drs. Haggart, Dennis, and Diemer gave a symposium on Carcinoma of the Breast, Dr. Haggart presenting the surgical aspect, Dr. Dennis the pathology, and Dr. Diemer the radiological treatment.

E. P. HUMMEL,
Secretary.

* * *

OTERO COUNTY

Officers for 1934 were elected at the December meeting of the Otero County Medical Society, held December 8 in La Junta. Dr. Ralph S. Johnston of La Junta was chosen president, Dr. B. Franklin Blotz of Rocky Ford, vice president, and Dr. Charles E. Morse of La Junta, secretary-treasurer.

A symposium team representing the Colorado State Medical Society, together with other officers of the Society, were guests at the January meeting, held January 26 at the Kit Carson Hotel, La Junta. The meeting was preceded by a dinner at the hotel. Drs. John B. Hartwell of Colorado Springs, surgeon, George A. Unfug of Pueblo, radiologist, and Josephine Dunlop of Pueblo, clinical pathologist, presented a symposium on Cancer of the Breast. Dr. John S. Bouslog, Constitutional Secretary, and Mr. Harvey T. Sethman, Executive Secretary, respectively, of the State Society, talked on problems of medical economics and the new responsibilities created by recent rulings of the Civil Works Administration. Dr. G. Heusinkveld of Denver, representing the State Society's Committee on Public Policy, talked on the necessity of enacting a "basic science law" for Colorado at the next regular meeting of the legislature. At this meeting all resident members of the Society were approved for inclusion on the list of physicians eligible for C. W. A. compensation work.

C. E. MORSE,
Secretary.

COLORADO OPHTHALMOLOGICAL SOCIETY

December 16, 1933

DR. E. E. McKEOWN, PRESIDING

Dr. F. L. Beck presented a case of restoration of the socket with Thiersch grafts.

Dr. W. H. Crisp presented a case of neuroretinitis of doubtful etiology.

Dr. R. W. Danielson presented a case of intractable corneal ulcer secondary to "tic douloureux," trauma, and dacryocystitis cured by conjunctival flaps.

Dr. John Long presented a case of interstitial keratitis; marked improvement followed treatment with tertian malaria.

Dr. J. L. Swigert presented a case of retinoblastoma or pseudo-retinoblastoma.

Dr. R. W. Danielson and Dr. John Long reported follow up notes on a case of pseudo-retinoblastoma; pathological report was presented at the November meeting.

Dr. W. M. Bane reported a case of retinal detachment.

Dr. V. H. Brobeck reported a case of pemphigus of the conjunctiva.

Dr. G. H. Stine reported a case of acute congestive glaucoma developing in the course of early glaucoma simplex.

GEORGE H. STINE,
Recorder.

Obituary

Oliver Wilson Spicer

Dr. Oliver Wilson Spicer, 85, pioneer physician and surgeon of the Pikes Peak region, died at his residence, 423 North Weber Street, recently after an illness of two weeks.

Dr. Spicer was born in New Concord, Ohio, October 26, 1848, and was taken by his family seven years later to Monmouth, Ill., where he was reared and educated. After graduating from Monmouth College, Dr. Spicer went to Chicago Medical College, the medical department of Northwestern University, where he secured his M.D. degree in 1873. Later that same year he married Harriet Elizabeth McQuown and settled in College Springs, Iowa.

Following a visit to Colorado Springs, Dr. Spicer and his family moved to Colorado in 1881, settling in Loveland. Five years later Dr. Spicer moved to this city and has resided here ever since.

Dr. Spicer was a charter member of the United Presbyterian Church here and was an elder emeritus. He was a member of the Winter Night Club, honorary member of the El Paso County Medical Society, and a former director of the Y. M. C. A.

He held the office of county physician for a number of years and from 1887 to 1928 was surgeon for the Santa Fe Railroad.

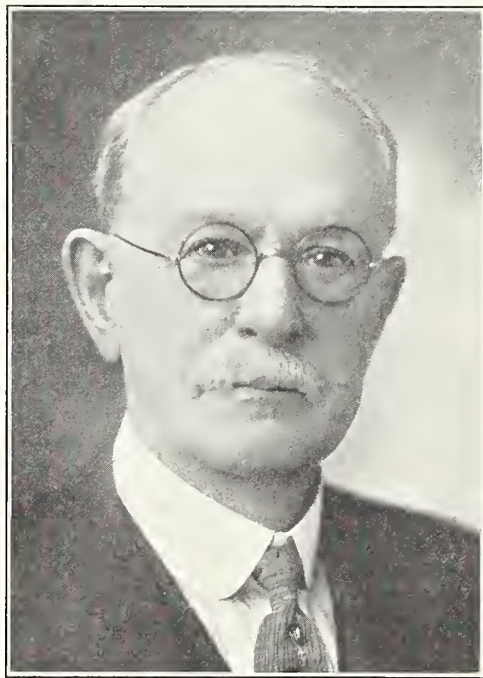
Mrs. Spicer died here in 1915.

Dr. Spicer is survived by four children: Mrs. Benjamin Gill of this city; Mrs. Henry Reist Nissley of Denver; Capt. Charles Clyde Spicer and Carroll Atchison Spicer, both of Los Angeles.

W. W. Grant

An imposing figure in American medicine from our professional horizon with the death, on January 8, of Dr. W. W. Grant. Credited with the first successful operation for the removal of the appendix, January 4, 1885, his fame as a daring and resourceful surgeon rests even more firmly on the classical technic which he developed in nerve anastomoses for facial paralysis and in plastic procedures for carcinoma of the lip.

For these substantial contributions, as well as for the extraordinary versatility which won him first ranks as orator, writer and teacher, the recognition of his colleagues was frequently attested in his elevation to practically every post of honor at their command. Dr. Grant served as president of the County and of the State Medical Society and the Western Surgical Association; he was one of the founders of the American College of Surgeons, Trustee of the American Medical Association for sixteen years, and twice a candidate for president of that organization.



W. W. Grant

Dr. Grant's military experience was unique in the medical annals of our time. Of the gallant host in gray who followed the fortunes of Lee and Jackson in the conflict between the states, he alone survived to serve with zeal and distinction throughout the World War, nearly sixty years later.

In the last battle, with an implacable enemy which finally claimed his life, he displayed the same indomitable spirit which characterized through two full generations his vigorous antagonism to every form of chicanery and deceit in medical practise.

His death from malignant disease recalls the similar fate of his great namesake, General U. S. Grant, and like the famous Union Commander, Dr. Grant wrote his memoirs in full knowledge of the few days remaining. He was born on his father's plantation in Alabama, November 15,

1846; was graduated from Bellevue and Long College in 1868; engaged in general practise at Davenport, Iowa, 1872 to 1885; was Post Surgeon at Rock Island Arsenal, 1885 to 1887; pursued graduate studies in Europe throughout the year 1888 and settled in Denver in 1889. He was Surgeon General of the Colorado National Guard for four years and devised the original first aid packet for troops in the field. He died as above noted, on January 8, 1934, at the ripe age of 87 years.

J. W. A.

WOMAN'S AUXILIARY

The Colorado Tuberculosis Association and The Woman's Auxiliary to the State Medical Society conducted a Radio Contest in December. Subject, "Tuberculosis—A Challenge to the Youth of Colorado." The essays were given over KOA.

The first prize of \$10.00 was won by Miss Caroline Inglehart of Grand Junction, Colo. The second prize of \$5.00 was won by Miss Bernice Hickert of Denver. Miss Wilma Morris of Simla, Colo., won third. The money was contributed by the Auxiliary and was to be used by the schools for approved health projects.

Fifteen schools in the state sent in essays. Seventy schools applied for literature furnished by The Colorado Tuberculosis Association and planned some work on the subject. Thus the contest must be considered very successful from an educational point of view.

MRS. G. P. LINGENFELTER.

The Woman's Auxiliary to the Denver County Medical Society held its Annual Benefit Card Party November 20. One hundred dollars of the proceeds were given to the Scholarship Fund of the University of Colorado Medical School. This is the fifth year Denver County Auxiliary has contributed one hundred dollars to this fund, making a total of five hundreds.

The January meeting was well attended. During the meeting, hand sewing was done for the Red Cross. January 23 had been set aside for the Auxiliary to sew at the Red Cross rooms. Fifteen dollars was voted to the Visiting Nurses' Association. This sum has been contributed to this association for several years. Infants' garments left from last year's Philanthropic Committee have been given to two very deserving families. A most charming program was given by Miss Mabel Buechner, a talented pianist, and Mrs. W. R. Aven, who reviewed "Flush," by Virginia Woolf, most entertainingly. Tea was served at the close of the meeting.

PRIZE AWARD AGAIN OFFERED FOR GOITER RESEARCH

The American Association for the Study of Goiter, for the fifth time, offers Three Hundred Dollars (\$300.00) as a first award, and two honorable mentions for the best essays based upon original research work on any phase of goiter presented at their annual meeting in Cleveland, Ohio, June 7, 8, and 9, 1934. It is hoped this will stimulate valuable research work, especially in regard to the basic cause of goiter.

Competing manuscripts must be in English, and submitted to the Corresponding Secretary, J. R. Yung, M.D., 670 Cherry St., Terre Haute, Ind., U.S.A., not later than April 1, 1934. Manuscripts received after this date will be held for the next year or returned at the author's request.

The First Award of the Memphis, Tenn., 1933, meeting was given Anne B. Heyman, A.B., M.S., University of Michigan, Ann Arbor, Mich., "The Bacteriology of Goiter and the Production of Thyroid Hyperplasia in Rabbits on a Special Diet."

Honorable mentions were awarded J. Lerman, M.D., and W. T. Salter, M.D., Huntington Memorial Hospital, Boston, Mass., "The Calorigenic Action of Thyroid and Some of Its Active Constituents," and Prof. Dr. Stefan Konsuloff, Sofia, Bulgaria, "Experimental Studies on Etiology of Goiter."

SOUTHEASTERN SURGICAL CONGRESS

The Southeastern Surgical Congress will hold its fifth annual assembly in Nashville, Tennessee, March 5, 6, and 7. The Andrew Jackson Hotel will be hotel headquarters and the lectures and exhibits will be in the war memorial building.

The following doctors will occupy places on the program: Fred H. Albee, New York; W. Wayne Babcock, Philadelphia; S. O. Black, Spartanburg; Vilray P. Blair, St. Louis; Frank K. Boland, Atlanta; J. B. Brown, St. Louis; D. B. Cobb, Goldsboro, N. C.; George W. Crile, Cleveland; T. C. Davison, Atlanta; John F. Erdmann, New York; P. G. Flothow, Seattle; Seale Harris, Birmingham; M. S. Henderson, Rochester, Minn.; Arthur E. Hertzler, Halstead, Kansas; Chevalier Jackson, Philadelphia; Walter C. Jones, Miami; Dean Lewis, Baltimore; Joseph F. McCarthy, New York; C. Jeff Miller, New Orleans; A. J. Mooney, Statesboro, Ga.; John J. Moorhead, New York; Edward T. Newell, Chattanooga; Fred Rankin, Lexington, Ky.; Paul H. Ringer, Asheville; Stewart Roberts, Atlanta; George H. Semken, New York; Phil C. Schreier, Memphis; Arthur M. Shipley, Baltimore; H. E. Simon, Birmingham; A. O. Singleton, Galveston; J. R. Young, Anderson, S. C.; Waitman F. Zinn, Baltimore.

For information write Dr. B. T. Beasley, 1019 Doctors Building, Atlanta.

No patient can be said to be cured of tuberculosis till he is safely dead of some other disease.—R. C. Wingfield.

The art of medicine lies wholly in observation.—Louis.

The treatment of high blood pressure is a regimen, not a drug.—Huchard.

WYOMING SECTION

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EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Wyoming State Medical Society Annual Meeting Casper, Wyo., July 16-17

DEFINITE dates, as above, have been selected by President Beck and all officers of the State Society whom he could gather around him at Cheyenne Saturday, January 20. Invitations from Cody, Sheridan, Cheyenne and Casper were presented. Casper was selected as the place for the 1934 meeting.

Quite a general discussion was had on the question of a program and it was the opinion of those present that clinics of two hours in the morning to be put on by the Natrona County Medical Society at the hospital would be enjoyed. One half day we expect to devote to the wood tick and the diseases it transmits. We want several papers on the different phases by Wyoming men who have worked in this field and also from the United States Public Health Service and its workers. We want to make this the most interesting half day of the meeting.

Every member of the Wyoming State Society is invited and urged to prepare a paper and if there are more papers offered than time allowed by the program we will select the most outstanding to be read. Now this means YOU, so don't wait for any special invitations because they won't be sent. We know a number of outstanding medical men who would be tickled to death to be invited to come to Casper and present interesting papers, but this year President Beck wants to make the Casper meeting one largely put on by Wyoming men. He thinks it can be done so it's up to you to make good and send in your subjects before the first day of April. That date is going to be

the deadline. If the program is not complete by that time, outside men will be invited to fill it up. Doctors from other states like to come to our meetings; we know this is true because they all tell us our boys are the best listeners before whom they ever spoke.

There is no stiff formality at the Wyoming meetings. We call each other by first names—now and then even worse than that—but the Wyoming free spirit is what we love to see and what the Eastern man is taken with. We all expect to have a good time at Casper and look forward to this meeting with great pleasure. Send in the title of your paper to the State Secretary's office, before April 1, in order to get on the program.

E. W.

The Midwinter Postgraduate Clinics of the Colorado State Medical Society

WE had the privilege of attending the clinics this year and, together with several other Wyoming medical men, we were very much pleased with what was offered. The speakers were snappy and had their cases well worked up to a careful presentation. Delays were conspicuous by their absence and as a whole everything moved along very smoothly.

There was a good attendance from outside of Denver as well as those whose homes and offices were in the Capitol City. New Mexico, Kansas and Wyoming were represented. Five doctors were present from Wyoming and we feel that next year many more will be there from this state. It is time well spent and a more useful physician

returns to his home people after three days spent in these clinics.

We shall not attempt to discuss the different clinics nor even try to bring out some of the new things we learned, but do want to say to the men who put them over that they did it well. Next year many more Wyoming men will be present for they cannot afford to miss such good things.

It was certainly a great pleasure to meet so many old friends, classmates, and former medical and surgical teachers. Surely as we grow older we think more of our old friends and the courtesies extended touched our hearts deeply. Thirty-two years ago we served as an intern in the old Arapahoe Hospital and today great changes have made this into the Denver General Hospital. There was no Childrens Hospital in those days and the fine Colorado General now stands on the ground which in our college days was the home of the coyote and jack rabbit. Wonderful hospitals these, and they offer the scientific training so needed, not only for the successful treatment of the patients, but as a supplement in the teaching of medical students by the University of Colorado School of Medicine.

We wish to gratefully acknowledge our debt of gratitude to Dr. and Mrs. Douglas Macomber and to Harvey and Mrs. Sethman for the wonderful time they gave us.
E. W.

WYOMING NEWS NOTES

NATRONA COUNTY

Dr. Neil Charles Geis announces the opening of offices for the practice of Surgery and Gynecology, Suite 206, 6354-56 Broadway, Chicago. Telephone Briargate 5428. Dr. Geis has been practicing in Casper for the past several years.

SHERIDAN COUNTY

The Sheridan County Medical Society and the staff of the Sheridan County Memorial Hospital held their regular monthly dinner and meeting at the Sheridan County Memorial Hospital dining room Tuesday, January 9, at 6 p. m. At the staff meeting the interesting cases and deaths were reported by Staff Members after which Dr. W. H. Steffen read a very interesting paper on Acute Infectious Endocarditis. Election of officers resulted in the following for 1934: Dr. W. H. Rob-

erts, Chief of Staff; Dr. C. E. Stevenson, Vice President; Dr. P. M. Schunk, Secretary-Treasurer. The same officers were elected by the Sheridan County Medical Society.

Dr. W. H. Roberts and Mrs. Roberts expect to spend the next two months in the southern states, especially Florida.

Dr. C. E. Stevenson has retired as the Sheridan Medical Examiner and Surgeon for the C. B. & Q. Railroad after many years of service. He has reached the age limit allowed by the company, but this does not mean for one moment that Dr. Stevenson has retired from his very active practice in Sheridan. Dr. E. G. Denison has been appointed to fill the vacancy.

In Denver, Colorado, January 20, Dr. A. B. Tonkin of Riverton, Wyo., died. In our next issue we hope to give a suitable notice of the life of Dr. Tonkin. He was buried at Riverton, Monday, January 22, 1934.

In the March issue we shall present a new financial plan as outlined by our worthy Treasurer, Dr. Evald Olson of Meeteetse. There are several matters of interest discussed and we are pleased to give space to any member of our Society who has anything in the way of a constructive nature to present to the Society. The discussion can be of great help if honestly given on the merits of the case. Some other member may offer other plans entirely different. If you wish to do this let us have them.

The Council of the Wyoming State Medical Society sustained the appeal of Dr. M. L. Crandall in the case of Carbon County Medical Society vs. Dr. Myron L. Crandall, on the ground that the Carbon County Medical Society did not, prior to the date set for the trial, officially furnish the defendant Dr. Myron L. Crandall, with the specific charges on which the Carbon County Medical Society would try him. This action of the Council was taken in Cheyenne, January 20, 1934.

For centuries the Chinese have paid their doctors to keep them well rather than to cure them when they were sick. Many an effort has been made by inquisitive visitors to China to check up this well-known bit of scientific information. The results have been discouraging, however, showing that until recently the Chinese have had no doctors worthy of the name to practice preventive medicine, or any other kind. Even though the Chinese doctor story is evidently a myth, it carries a valuable suggestion. Positive health, periodic medical examination, early diagnosis, prevention of disease, make up the message that is beginning to prevent much suffering and save many lives.—Reprint, The Canadian Medical Association Journal.

BUILDING THE DOCTOR'S SURPLUS

Constant supervision has been the one principle for the building of a doctor's surplus which has been stressed most strongly in these articles.

One reason for this is that it has been so sadly neglected by the average investor. Many losses could have been avoided if proper supervision had been given.

Another reason for this need is constantly changing economic conditions. American wealth is continually changing; for example, in 1860 48.1 per cent of our wealth was in agriculture, while in 1932 only 8.2 per cent was represented by this industry. In 1860 transportation accounted for 3.7 per cent of our total wealth. It rose in 1904 to 10.7 per cent and in 1932 accounted for but 7.8 per cent; or in other words, had returned in 1932 to the same relative position it occupied in 1880. Distribution, which includes stores, shops, eating places, chain outlets, garages, etc., represented only 3 per cent of our wealth in 1860; but now amounts to 10.5 per cent.

American wealth is changing in still another form: in 1929 it had reached a peak after steadily increasing for many years. Since then there has been a continual shrinkage. The new forms wealth assumes should be of utmost concern to the investor. In order to avoid losses and to hold only the most profitable investments his investment account must have constant supervision. Otherwise he will hold investments in corporations which, having passed their peak, are in a period of retrogression.

Today is a time of change. Tomorrow promises even greater changes. Today we have come a long way up from the bottom, but in the security field new favorites are already replacing the favorites of yesterday. Tomorrow will bring still new leaders, which today are unknown or highly speculative.

American wealth is changing; greater emphasis on constant supervision is needed now more than ever before.

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American College of Surgeons Meeting

A SECTIONAL meeting of the American College of Surgeons, comprising the states of Colorado, Utah, Idaho, and Wyoming, will be held in Salt Lake City on February twenty-eighth and March first. Since this is our district meeting, it is recommended that as many hospital superintendents and executives from the Colorado Hospital Association as can possibly do so plan to attend.



Quarterly Meeting of Colorado Hospital Association

THE program committee is working on the program for the next quarterly meeting. It is the plan to make use of some of the speakers who will be returning to the East from the Salt Lake City meeting of the American College of Surgeons, or some of those who will pass through Colorado on their way to the Western Hospital Association which occurs at a later date.

The program committee hopes that one of these nationally known speakers may speak to our association on the "Problems of Ethical Publicity." This will be a timely subject due to the recent adoption of the Code of Ethics of the Colorado Hospital Association.



Memberships

EVERY member of the Colorado Hospital Association is asked to look around and see if there is not some ethical hospital executive in his locality who is not now a member of the Association; and if so urge him to apply to the executive secretary for membership.

WAGES AND VACATIONS IN COLORADO HOSPITALS*

WALTER G. CHRISTIE
DENVER

The subject of this paper is a timely one, because the harrassed hospital executive, searching every nook and corner to reduce operating costs, finds that there is no available field left except that of labor, and the question comes to his mind whether it is better to reduce the number of employees or cut salaries still further. I am sure each one of us hesitates to do the latter, and we are in a quandary because we do not know what attitude other hospitals are taking toward this subject.

In order to write a paper of this kind it was necessary to secure material from the various hospitals of the state. Twenty-eight questionnaires were sent out and twenty-three returned. This not only shows a keen interest in the subject, but also a fine cooperative spirit on the part of the various hospitals, for we are all at various times overwhelmed with questionnaires.

The title of the paper is divided into two subjects, and therefore we will deal with them in order. After the questionnaires were studied and the data compiled, there appeared at once two different classes of salaries. There were five questionnaires that showed a salary classification much higher in average than the remaining group of eighteen questionnaires. Therefore the statistics of this paper will deal with those of the higher group, those of the lower group, and a third group of hospitals of this western country.

This last group comprises ten hospitals of 150 to 200 beds, and the material is gath-

*Read at the Ninth Annual Meeting of the Colorado Hospital Association, Nov. 15, 1933.

Mr. Christie is Superintendent, Presbyterian Hospital, Denver, Colorado.



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ered from a paper written by E. M. Riley, Superintendent of the Methodist Hospital at Wichita, Kansas, in 1931. In order to bring these figures down to our figures of 1933, the writer arbitrarily discounted the wages of this group by 15 per cent. It was estimated that salaries had on the average been reduced around 15 per cent in the last two years. This of course is not entirely accurate, but close enough to give us a measuring stick.

The questionnaires sent out by the writer did not include some items, which no doubt raises a question in your own minds. One of these is whether room allowances are included in the cash salary. It was felt that the questionnaires should not be made too detailed, so that item was left out and the figures as given are for cash salaries. In some instances this includes allowance for room, in other instances room is allowed in addition, but when we take the average of the groups of hospitals, some giving room and others giving allowances, I think the average figures would not be very far off.

In reading the following data the first amount will be the average of the higher group of salaries, Group A the second figure the average of the lower group of salaries, and Group B the third figure the average from Mr. Riley's paper.

	GROUP A	GROUP B	MR. RILEY
Admission Clerks	92.60	40.90	102.00
Telephone Operators	77.90	37.35	60.00
Stenographers	94.77	45.44	.....
Cashier	137.87	79.69	110.00
Bookkeeper	161.95	59.87	119.00
Record Librarian	103.90	56.35	98.00
Supt. Nurses	156.25	102.75	175.00
Asst. Supt. Nurses	105.50	62.55	.....
Instructors	128.50	79.50	136.00
Floor Supervisors	115.20	52.79	112.00
Surgical Supervisors	115.00	72.50	118.00
Gen. Duty Graduates	67.30	51.92	.....
Orderlies	67.50	30.02	60.00
Laboratory Technician	118.00	60.04	157.00
X-ray Technician	117.95	103.87	166.00
Dietitian	127.20	63.81	140.00
Asst. Dietitian	95.00	.....	.....
Chef or Cook	122.10	81.85	104.00
Man help, Kitchen	73.10	40.31	.....
Maid help, Kitchen	46.00	27.45	49.00
Housekeeper	78.50	56.70	88.00
Maids	44.20	33.70	47.00
Porters	67.55	31.73	60.00
Laundry Supervisor	95.00	69.75	136.00
Flat Work Help	49.71	34.86	45.00
Hand Ironers	56.95	35.61	45.00
Washman	81.50	57.16



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	GROUP A	GROUP B	MR. RILEY
Engineer	164.00	102.57	170.00
Asst. Engineer	121.65	71.72	96.00
Firemen	100.00	58.59	.....
Painter	109.25	56.83	102.00
Carpenter	115.50	53.44	.....

There was also the question of what meals
were furnished in addition to the cash sal-
ary, and the following data were gathered
from the questionnaires sent to the Colorado
Hospitals:

	GROUP A Meals			GROUP B Meals		
	1	2	3	1	2	3
Admission Clerks	3	.....	.....	2	2	3
Telephone Operators	3	.....	2	.....	1	6
Stenographers	3	.....	.....	2	.....	6
Cashier	3	.....	.....	1	.....	2
Bookkeeper	4	.....	.....	1	.....	2
Record Librarian	3	.....	.....	.....	.....	3
Supt. Nurses .....	.....	5	.....	.....	.....	10
Asst. Supt. Nurses .....	.....	4	.....	.....	.....	8
Instructors .....	.....	5	.....	.....	.....	5
Floor Supervisors .....	.....	5	.....	.....	.....	5
Surgical Supervisors .....	.....	5	.....	.....	.....	8
Gen. Duty Graduates .....	.....	5	.....	.....	.....	11
Orderlies	1	4	.....	1	.....	7
Laboratory Technician	2	.....	1	1	.....	8
X-ray Technician	1	3	.....	1	.....	6
Dietitian .....	.....	5	.....	.....	.....	7
Asst. Dietitian .....	.....	4	.....	.....	.....	.....
Chef or Cook .....	.....	5	.....	.....	.....	11
Man Help, Kitchen .....	.....	5	.....	.....	.....	7
Maid Help, Kitchen .....	.....	5	.....	1	.....	8
Housekeeper .....	.....	3	2	1	.....	3
Maids .....	.....	4	2	.....	.....	7
Porters .....	.....	4	.....	.....	.....	3
Laundry Supervisor	1	.....	1	1	3	2
Flat Work Help .....	.....	.....	2	3	.....	3
Hand Ironers .....	.....	.....	2	1	.....	4
Washman .....	.....	.....	1	1	.....	2
Engineer	1	.....	3	.....	.....	8
Asst. Engineer .....	.....	.....	3	.....	.....	5
Firemen .....	.....	.....	3	.....	.....	7
Painter	1	.....	2	2	.....	3
Carpenter	1	.....	1	2	.....	5

In the matter of vacations with or with-
out pay, we find the hospitals definitely
grouped as we found them in the matter of
salaries paid. There were three hospitals
in Group B that gave no vacations with
pay. The following data are given on the
basis of one, two, three weeks and one
month.

	No. of Hospitals giving vacations of					
	—GROUP A—			—GROUP B—		
	1	2	3	1	2	3
	—Weeks—	mo.	—Weeks—	mo.	—Weeks—	mo.
Admission Clerks ..	4	1	.....	2	.....	1
Telephone Ops.	4	1	.....	4	1	.....
Stenographers	5	.....	.....	3	3	.....
Cashier	2	1	.....	2	2	.....
Bookkeeper	4	1	.....	4	2	.....
Record Librarian ..	4	1	.....	2	2	.....
Supt. Nurses	2	3	1	6
Asst. Supt. Nurses ..	2	3	6
Instructors	2	3	1
Floor Supervisors ..	3	1	1	1	2

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No. of Hospitals giving vacations of

	—GROUP A—				—GROUP B—			
	1	2	3	1	1	2	3	1
	—Weeks—		mo.		—Weeks—		mo.	
Surgical Superv's ..	3	1	1		2	3		1
Gen. Duty Grads.	3	1	1		4	3		1
Orderlies ..	5				2	2		
Lab. Technician ..	4		1		1	5		
X-ray Technician ..	3		2			7		
Dietitian ..	3		2		2	1		1
Asst. Dietitian ..	3		1			1		
Chef or Cook ..	5				5	2		
Man Help, Kitch.	5				2			
Maid Help, Kitch.	5				2			
Housekeeper ..	4				1	2		
Maids ..	5				2	1		
Porters ..	5				2			
Laundry Superv'r ..	5				2	1		
Flat Work Help ..	5				1	1		
Hand Ironers ..	5				1			
Washman ..	4							
Engineer ..	5				3	1		
Asst. Engr.	5				3			
Firemen ..	5				3			
Painter ..	4				2			
Carpenter ..	5				3	1		

As stated before in this paper, we have made no attempt toward absolute accuracy in all details, as we thought it was unnecessary, but the averages give us pretty definite information and something by which we can measure our own individual cases.

I am sorry that the matter of sick leave was not given to me in time to gather this information also, as it is a corollary of wages and vacations.

WHEN HUMANITY LEAVES THE
HOSPITAL*

FRANK J. WALTER
DENVER

In a recent discussion with a lay friend, a man very successful in his own field, our conversation turned to hospital problems. My friend expressed freely his ideas of hospitals formulated from the viewpoint of an outsider looking on, rather than one participating in the benefits of hospital service. This conversation would have had no particular significance had it not been for the conclusion which my friend drew: That hospital executives emphasize too strongly the humanitarian principle, and that hospitals would be much better off if they were run on the cold maxims of business.

*Mr. Walter is Superintendent, Saint Luke's Hospital, Denver, and retiring President, Colorado Hospital Association. Presidential Address, Annual Banquet, Colorado Hospital Association, November 15, 1933.

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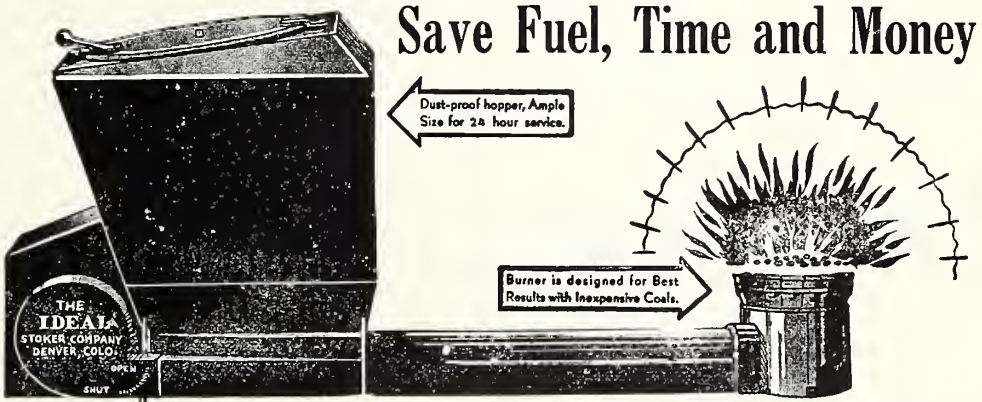


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His conclusion lingered in my mind, and I began to realize what a large part this very principle—which my friend had suggested should be entirely eliminated—plays in the every day work of the hospital and how it motivates every activity of the hospital. I then tried to imagine such a hospital as he advocated, one from which the spirit of humanity was completely left out.

All recognized ethical hospitals are for the most part alike in equipment and facilities for the care of their cases and in the type of nursing service given to the patients. What is it, then, which makes certain hospitals the most outstanding in the minds of the public? It is the spirit of humanity which is more fully practiced in these hospitals than in the others. These hospitals are the ones which anticipate their communities' needs and present ways of meeting them. These hospitals are able to keep themselves free from political interference both within and without. These hospitals are continually striving to make their communities health conscious. These hospitals even in this time of business stress and uncertainty are not sacrificing their scientific programs in the promotion of their economic interests. "Balanced budgets are a necessity in the conduct of business, but balanced budgets, it still remains to be proved, are not an indispensable condition for the maintenance of humanitarian service. The intangibles of life become realities when translated into the increased hours of personal service as are also reduced and curtailed expenditures, donated charities, unmentioned benefactions. And these may well be entered to cancel many a red deficit."*

Without the spirit of humanity each hospital of the community, or of the nation, would be an independent, self-centered, uncooperative unit; the scientific advancement for the care of the sick would be practically at a standstill. There has developed, in the code of ethics among the professions caring for the sick, an unwritten principle that any discovery which will either aid in thera-

*From an address given by the Reverend Alphonse M. Schwitalla, S. J., before the Catholic Hospital Convention in Villanova, Pennsylvania, June 31, 1932.

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peutic treatment, or will expedite the administering of such treatment to patients, shall not be withheld or commercialized by the discoverer, but shall be freely given to the medical group so that all may benefit thereby. Without the spirit of human kindness there would not be this willingness of one individual or institution to share this knowledge and experience for the good of the whole. Without it the common law of courtesy, demanding that one hospital superintendent reciprocate in extending support and kindness to other hospital executives who have performed similar services and courtesies for him, would not be exercised.

Without the spirit of humanity no such meeting as this one and no national meetings of similar purpose, would be held. There would be no exchange of ideas, no willingness of the strong to help the weak, or of the fortunate to aid the less fortunate. Without this spirit toward other hospitals, the proselyting of one hospital among the doctors who are loyal supporters of other institutions would not be frowned upon as it now is by all ethical hospitals. The hospitals which are following this practice, in these days of trying business conditions and situations for all hospitals, are those in whose administrations the humanitarian principle is not firmly grounded. They are attempting to draw physicians away from other institutions in which they are already established and are offering inducements which would not only be impossible of fulfillment, but which if they were called upon to carry out would result in the disruption of their own staffs.

The entire system of voluntary hospitalization is built upon the spirit of humanity. Without it this system would collapse. State Medicine would then be a reality, since the private hospital is the only bulwark against it. Moreover, since every community throughout the country has as many private hospitals as the patronage of that community will justify, it is not in keeping with a spirit of helpfulness to the already existing organizations, or of kindness to the people

(Continued on Page Twenty-four)

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WHEN HUMANITY LEAVES THE HOSPITAL

(Continued from Page Twenty)

who are served by these hospitals, that additional ones be added. Until the demand for private hospital care increases in volume, the establishment of any new institutions which will further divide the financial support available will do an injustice, as it will endanger the private hospital system already existing.

Try as hard as I could, I could not visualize the nursing service in the hospital without the spirit of human kindness. In fact, if we take that spirit away from the nurse we take away her highest attribute. I would rather describe her as she is, as the poet Longfellow describes his character Evangeline in his final tribute to her as she ministers to the sick:

"Thither by night and by day, came the Sister of Mercy. The sick
Looked up into her face, and thought, indeed, to behold there
Gleams of celestial light encircle her forehead with splendor,
Such as the artist paints o'er the brows of Saints and Apostles,
Or such as hangs by night o'er a city seen at a distance."

* * *

"Many a languid head, upraised as Evangeline entered,
Turned on its pillow of pain to gaze while she passed, for her presence
Fell on their hearts like a ray of the sun on the walls of a prison."

Contrary to my friend's suggestion, we who have under our direction the training of nurses and the building of curriculums are constantly striving to develop the spirit of humanity to the utmost. We emphasize the importance of sympathetic understanding between the nurse and the patient. We teach the nurse to realize that, although she may know from her experience that a given case is like many others in which there is nothing to warrant concern in the mind of the patient or his relatives, it is exaggerated in seriousness and likelihood of disaster. The patient enters the hospital with fear and anxiety because the experience is an unaccustomed one for him, and he expects the worst until the nurse by her sympathetic understanding quiets these fears and forebodings.

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the hospital which I cannot imagine as performing their duties without the spirit of human kindness. The admitting clerk, by her kind words and sympathetic manner toward the entering patient, saves him much anxiety and gives him a feeling of security in trusting his life or health to the hospital. The pathological laboratory technician, who almost immediately after the patient's arrival in the hospital, enters his room with her mysterious-looking needles and tray of scientific equipment, can by an attitude of sympathy and gentleness dispel the fears which arise in the mind of the already distraught patient. She must remember that these examinations, which are everyday routine to her, are entirely unknown and bewildering to the patient. The interne, if he is worthy of the confidence placed in him, will manifest such a spirit of human kindness that the patient will not be perturbed by the many questions asked regarding his personal history and the necessary but sometimes tedious physical examinations. The x-ray technician, as she works over the patient with machines which from their very appearance may arouse fear in his heart, must handle him carefully and tenderly, so that he may be as comfortable as the physical conditions will allow and that his confidence and good will may be built up. It is the spirit of humanity which prompts the dietitian to give her special attention and personal interest to the diets and trays of the individual patients, particularly of those who because of physical pain or discouragement do not have a normal desire for food. I could not imagine even the business department of the hospital executing its duties on the principle that the collection of accounts is the only important function of the hospital. The person from that department whose duty it is to negotiate with the patient regarding his ability to pay the hospital for services rendered must temper his requests or demands with the element of mercy.

One of the most inhuman vices which would thrive in the hospital without the humanitarian principle is gossip. When a patient enters a hospital, many facts of his personal and family life are laid bare in

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the interest of an accurate diagnosis. The patient is moreover likely in time of trouble to open up his heart to those who are giving him sympathy and care. The code of ethics for nurses and other hospital employees dictates that these things must be held in the strictest confidence and must not be discussed either inside or outside the hospital. Tongues must be bridled even against comments which might seem to be most innocent in character, since such remarks may be magnified and retold by a curious and often unsympathetic public.

A story is told of a man who was an inveterate gossip, one who told tales indiscriminately about his fellow men. In time, his conscience began to torment him, and he called upon the village philosopher for advice as to how he might make amends for the injury he had done. The philosopher told him to take a bag of feathers, go to the top of a nearby hill, empty the feathers from the bag, and then return. The man did as he was told and, since the day was a windy one, the feathers were scattered far and wide. The philosopher then bade him go again to the hill top, pick up all the feathers, and put them back into the bag. The man was aghast at this request, and explained to the philosopher that the feathers from the bag had been scattered so far by this time that there would be no possibility of his recovering even a handful of them. "So it is," said the philosopher, "with the gossip which you have spread about your fellow men. Those tales have scattered far and wide; and, no matter how contrite you are, they cannot be recalled."

Nothing will more surely cause dissension among employees, or create fear in the minds of future patients of a hospital, than gossip within and disseminating from that institution.

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their own vocations. Such appointments have not been sought by these individuals, but have been given to them as marks of distinction and honor. Without the spirit of humanity these trustees would accept such positions for their own business furtherance or social prestige. But any personal gain secured in this way would be of short duration because these persons would soon cease to be held in high esteem by their fellow men and would be considered unworthy of the responsibilities given to them on the Hospital Boards. Without this spirit the hospital trustees would be interested solely in the profits or losses appearing on their balance sheets. Without it they would have no interest in the scientific value or accuracy of the work performed in their hospitals, and they would make no effort to provide an adequate system of hospital records. They would not be concerned in having the hospitals properly equipped. They would not know whether the work of surgeons and medical men on the staffs of their hospitals was on the highest plane of efficiency or not. They would take no thought of the education and training of nurses and internes; and would have no anxiety regarding the quality of nursing care given to patients.

My friend is wrong in thinking that hospital executives emphasize too strongly the humanitarian principle and that hospitals would be much better off if they were run without it. He has been affected by the skepticism born of an age of technocracy and over-stressed economics. He is a Frankenstein who has created a monster, a hospital without a heart, a castle of cold walls and unsympathetic corridors. He will not believe except what he sees in his economic life. He thinks that nothing can be which is not correlated to it. All theories, whether they be economic or otherwise, are little. †In this great universe of ours, man is a mere insect, an ant, in his intellect, as compared with the boundless world about him, as measured by the intelligence capable

†Credit is given to an editorial, written by Mr. Frank P. Church, which appeared in the New York Sun.

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parents are probably chiefly responsible. Whatever the explanation may be, the fact remains that the incidence of rickets is still too great and will continue to be until some cheap, generally available, agreeable source of vitamin D is provided. Vitamin D milk seems to offer promising possibilities of meeting these requirements."

(Krauss, W. E.: Bimonthly Bulletin, Ohio Agricultural Experiment Station, Ohio, U. S. A., Vol. XVIII, No. 164, Sept.-Oct., 1933)



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ALL DRYCO IN THE HANDS OF DRUGGISTS IS IRRADIATED

of grasping the whole of truth and knowledge.

Humanity has not left the hospital. It exists as certainly as love and generosity and devotion exist; you know that they abound and give to your life its highest beauty and joy. How dreary would be the world if there was not a spirit of humanity. There would be no faith in mankind, no poetry, no romance to make tolerable this existence. We should have no enjoyment except in sense and sight. The eternal light with which humanity fills the world would be extinguished. The most real things in this world are those that neither economic laws nor materialism can control. Nobody can conceive or imagine all the wonders which are unseen and unseeable in the world. He may think that properly balanced statements are indicative of the hospital's efficiency; but there is a veil covering its unseen work which not even the most expert accountant or the combined knowledge of all the economists who have lived can evaluate. Only faith, understanding, sympathy, love, and

charity can push aside that curtain and view the supernal beauty and glory. Is there humanity in the hospital? Thank God! It does exist. It will exist as long as there are hospitals and will continue to make light the hearts of the sick.

❖❖❖=====❖❖❖
IMMATERIA MEDICA
❖❖❖=====❖❖❖

Census Taker: "What is your husband's name?"
Mrs. Murphy: "Pat."
Census Taker: "I want his full name."
Mrs. Murphy: "When he's full he thinks he's Gene Tunney."
* * *

The other day I heard of one of these pee-wee autos speeding fifty miles an hour and every fifty feet the little trinket would hop right up in the air about five feet. A motor cop finally overtook the midget-motor and brought it to a stop.
"What's the big idea of that car jumpin' that-a-way?" asked the cop.
"Why, officers, there's nothing wrong with the car. You see!—I've got—hic—the hiccups."
* * *

A man touring Europe sent back to his son a picture postcard which bore the following message: "Dear son: On the other side you will see a picture of the rock from which the Spartans threw their defective children. Wish you were here . . . Your Dad."

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EDITORIAL NOTES AND COMMENT

We Welcome Three New Medical Societies

SINCE the last issue of Colorado Medicine went to press—in fact within a period of five days from January 30 to February 3—the Colorado State Medical Society has added three new constituent societies. We welcome them; we congratulate the physicians in those counties for seeing the need of local organization; we congratulate the State Society officers who brought about such action.

Elsewhere in this issue are detailed reports of the organization meetings which created the Adams County Medical Society, the Clear Creek Valley Medical Society, and the Washington and Yuma Counties Medical Society. Each new organization has been started on the right road. Each brings new members into the state organization. Each gives local physicians a local unit for local membership, better by far than the plan too many have followed—that of holding non-resident membership in some society, frequently the Denver Society, far removed from their homes.

Our best hope for each of these new societies is that they may continue with as much enthusiasm as they evidenced when they began.

We cannot say that this is the first time there ever has been a local medical organization in any one of these localities. When mining counties were populous, there was for a time a Clear Creek County Medical Society, serving to some extent the territory now covered by the Clear Creek Valley

Medical Society, which is to include the three counties next west of Denver: Jefferson, Clear Creek, and Gilpin. In the dim past, we are told there existed for a brief period an Adams County Medical Society. In 1905 the Eastern Colorado Medical Association, covering several counties in addition to Washington and Yuma, was organized and lived a few years. Physicians in these counties have been more the losers than has the State Medical Society during the years that no local organizations existed, and carelessness, lack of vision—indifference to one's own professional and financial welfare, if you please—has been more responsible for lagging interest in medical organization than the gradual depopulation of mining districts and deflation of agricultural districts.

It will soon be common knowledge, if not already, that the re-birth of medical organization in these three localities is directly due to the recent C.W.A. and other government regulations concerning medical activities of the "New Deal." The millions of persons put on federal payrolls and the millions receiving direct federal relief must be cared for medically, somehow. Much of the responsibility for setting up systems of caring for these millions, at least "for the period of the emergency," has been delegated by the federal government to state and county medical societies. We appreciate the confidence in medical organization thus expressed by the administration at Washington and wish only that this confidence had gone further—but that is another story.

In the last month physicians have sudden-

ly discovered that alignment with the recognized medical organization means dollars and cents to them, not next year or next month, but today. It has always meant this, and meant more, but never before so clearly or so immediately. Their pocketbooks are affected daily under the new regime, so we witness more applications for membership than in several years, and we witness the organization of three new medical societies in a five-day period.

We hate to inject this perhaps "sour note" into a welcome of the new societies, but our sense of justice to our national and state medical organization demands it. Those who serve the organization as officers, as committeemen, as editors, even those who hold no such position but who read current comment and travel a bit,—all those well know that medical organization and membership in medical organization means cash returns many times the annual dues, means advancement many times the effort expended, and means it year in and year out. No C.W.A. compensation work or other emergency federal legislation should be required as a special stimulus. It reflects upon our thinking processes that more of us do not realize these facts.

Events move too rapidly in Washington for us to attempt to pass judgment now on what the ultimate effect of the F.E.R.A., C.W.A., Rules Number So-and-so, Regulations Number This-and-that, may be upon medicine and medical organization. If they serve no other purpose than the present one of bringing home with a bang the realization that a perfected organization of doctors is a dollars-and-cents necessity, we may be thankful for their existence. Should they be the forerunners of some form of state medicine, as many fear, they may first have served so to unite us that we can combat the evil more successfully. Should they fade out of the picture with the passing of the depression and return us once more to what we have called normal conditions of medical practice, then in Heaven's name let us remember them, let us think for the future as well as for the present, let us pray and work and strive and if necessary dig deep into our pockets to maintain a solidified medical

organization that will be able to guide and if necessary block future trends in medical practice.



Has the Physician A New Deal?

THE "New Deal" has meant at least temporary material aid to practically every social element from laborer to capitalist. However, the practicing physician has not yet tangibly felt its impetus. The imminent relief to the masses means no more than an indirect and delayed benefit to the doctor. Financial returns comparable to those of several years ago are probably far away.

The federal government's venture in guaranteeing medical fees for C.W.A. employees who suffer injury or sickness in line of duty may be interpreted in two different ways. To many physicians it has given a ray of hope, and the newest regulations—those obtained by medical organization after a long and hard fight, opening this field of work to all reputable physicians—bring to the physician at least a small amount of revenue from patients that before had been purely subjects of charity. It is thus bringing some temporary relief to doctors in many communities and this seems to be spreading to all communities.

But many physicians interpret this federal venture as the first direct warning of impending disaster. A few see in this paternalistic move of the government the entering wedge, into a foundation well laid by depression, for the socialization of medicine. And there still remain many thousands of physicians in the United States who do not benefit at all from these government works. They must depend upon the ultimate readjustment of the entire machine of industry.

Comparatively few physicians feel so desperately discouraged that they would relinquish control of the practice of medicine to governmental or other lay organizations. Results of such schemes have been largely sorrowful for our foreign colleagues, even though their classes of society are more suitable recipients for such services than is the American people. Doctors of this country, through their organized medical societies,

will foster no such experiments. On the contrary, they are looking forward with the unfailing good signs which point to better times.

Stay with medical organization! If it has the unanimous support it deserves and needs, it will maintain the practice of medicine as an independent enterprise, and will return the physician to his traditional exalted position as an honored member of society.



Don't Let Your Dues Become Delinquent!

THE official dead-line after which your State Society dues are delinquent is March 1. You can not afford to drop behind. Information elsewhere in these columns, which review a few of the activities of the Society in behalf of every individual member, should suffice to remind us that no one can, without serious loss and danger, stay beyond the bounds of medical organization. Temptation might try to influence you, Doctor, to thus "economize." Do not yield! As a reminder, let us enumerate some of the advantages of membership:

1. Identification with the organization which is the only one which is recognized by the government and whose members will be reimbursed for professional services to C. W. A. employees. Hence every honorable and ethical physician should belong. In the event of any further socialization of medicine, this unit will be recognized and will be as powerful as we, organized physicians, make it.

2. Listing in A. M. A. Directory. This is the "Blue Book" by which we are largely judged by employers of physicians' services. It catalogues us as worthy; those who are excluded are judged with suspicion.

3. It entitles one to fellowship in the A. M. A. and other high type medical organizations. This is an honor, a privilege, and a safeguard.

4. Medical defense is assured. Malpractice suits are less liable to be entered against Society members. Plaintiffs prefer to attack individuals rather than organizations. Underwriters of our insurance show

their confidence in this fact by reducing their rates to members.

5. Public Health Legislation would run rampant against the medical profession were it not for the powers of organized medicine and its representatives.

6. Relationship with the public is possible only through organization, for our traditions rightfully assert that our voice to the public shall not be individual.

7. The economic phase of our professional work is assuming increasing importance. Insufficient unity in this phase of our work is one of the chief sources of public criticism. Through organization we keep informed as to proper fees, fair incomes, and the square deal toward the public and fellow physicians. It offers our only hope of protection against the charities which habitually impose upon physicians for services in preventive and curative medicine which should be at least partially tax-supported.

8. Society and Staff meetings and clinics, to which none but our members in good standing are entitled, are indispensable to competence and advancement in scientific medicine.

9. The Medical Library in Denver is open to all members. It is one of the finest in America. Its services are available to members throughout the State—personal or by mail.

10. This journal ranks among the best state medical publications. It is presenting, in every issue, matters of local and national importance. Its scientific content is abreast of the times in every department. It carries the transactions of your Society and your name in its annual list of members.

Send in your dues!



Federal Food and Drugs Act

SENATOR ROYAL S. COPELAND of New York has introduced Senate Bill 1944 in the United States Congress. Its aims are:

"To prevent the manufacture, shipment, and sale of adulterated or misbranded food, drugs, and cosmetics, and to regulate traffic therein; to prevent the false advertisement of food, drugs, and cosmetics, and for other purposes."

This bill would displace the original of

1906, the Pure Food and Drugs Act, which applies to the interstate shipment of impure and dangerous foods and drugs. The latter law is in urgent need of revision in view of the needs of today. The public needs protection, and legitimate industry should be shielded from the impositions of the ruthless exploiters of radio and periodical publicity. The interests that have made fortunes thereby have placed powerful lobbies against the bill. Its passage would nullify most of certain types of radio broadcast and other large-scale advertising.

The saneness of this bill and its benefit to public health need no elucidation to physicians. We are too frequently reminded of the nauseating claims which rob our people of millions of dollars allegedly in return for relief from real and imaginary aberrations. The profession's active support of the bill has been felt in Washington. Our own executive office, among others throughout the country, has spared no effort to convey the sentiments of the medical profession and to direct influential forces upon and through our Senators.

We eagerly await further news of this vital test between the forces of right and wrong—one striving to enhance health and to protect the people from robbery through misrepresentation, the other furthering the selfish gain of unscrupulous commercial powers.

Scientific Exhibit for the Annual Meeting

A FEW spaces for good exhibits are still available. The enthusiasm shown by those who have already applied assures the success of this important phase of the Annual Session. The Committee on Scientific Exhibits, a subcommittee of the Committee on Scientific Work, will arrange without crowding all exhibits accepted. Courtesy and cooperation on the part of this Committee awaits the exhibitors. Every effort will be made to facilitate efficient and economical installation and dismantling of the displays. The hall is to be neat, effective, and accommodating. The exhibitors as well as guests are to feel amply repaid for their time and trouble.

If you have museum specimens, collections, special technic, or a hobby which will interest your colleagues, communicate with the Committee on Scientific Exhibits, 537 Republic Building, Denver. This must be done promptly, as the plans are nearing completion.

Psychology

A BIT of the psychology of credits and collections is worthy of mention at this time. We're all familiar with the usual principles: That the patient should understand he is expected to pay something; that he should pay it promptly; that the items in the charge be made clear. Also our statements should go regularly in a business-like manner. And we should utilize credit information.

However, why intimate to the patients that collections are poor? Is there any reason why he should be made to feel that he'll be in a class by himself if he pays promptly and in full?

Think it over.

Mental Costiveness

FROM no less an authority than William J. Mayo comes a new name for an old and popular disability. Dr. Mayo discussed the problem of teaching our young people, in an address before the Interstate Postgraduate Medical Association of North America. He is convinced that our youth do too much memorizing and far too little thinking. Hence they are unable to apply their knowledge practically in later life.

The speaker applied a name to this "narrow cultural aristocracy." It sounds like medical terminology. The diagnosis is "text-book indigestion;" its chief manifestation is "mental constipation." This syndrome is evident among all elements of society. It is tragic that even our own colleagues suffer, at times, from disabilities for which we so far have no specific therapy.

We will relegate this malady to our educators. As time rolls on, they emphasize less the cramming of knowledge and more the art of practical dealing with life and the fellowman.

RECURRENT DISLOCATION OF THE SHOULDER*

J. S. NORMAN, M.D.
PUEBLO

The purpose of this paper is to bring to your attention a new, and, I believe, very efficient operation for habitual or recurrent dislocation of the shoulder. I have only done one case by this method, but found it so satisfactory that I believe it worthy of your consideration.

The shoulder is the most frequently dislocated joint of any in the entire body. Severe injury with minute fractures, extensive contusion and laceration of the capsule and supporting muscles, a late reduction, improper reduction, lack of, or inadequate fixation after reduction predispose to recurrent dislocation. From these causes there is a laxity of the capsular ligament and weakness of the supporting muscles. Weakness of the supra- and infraspinatus muscles allow the head to ride lower than normal, and the contractions of the pectoralis major, teres minor, and the latissimus dorsi muscles tend to displace the humeral head downward and forward. Abnormal shape of the head of the humerus, as well as abnormalities of the glenoid fossa also account for recurrent dislocation. Thus we can classify the pathology of recurrent dislocation of all types into bony, capsular, and muscular.

If a patient is seen immediately after the displacement, and if it has occurred but a few times and at long intervals, fixation followed by muscle stimulation, exercises, and massage may result in a cure.

The operation of tightening the shoulder capsule, as devised by T. T. Thomas, works very well in some cases. Another method, based on the theory that spasm of the pectoralis major with laxity of the subscapularis allows dislocation, shortens the subscapularis and divides the tendon of the pectoralis major. Another method that has been used and recommended is to thread fascia through a hole in the humerus below the capsule, attaching one end to the coracoid process, the other to the acromion process. Another

method consists of separating the posterior third of the deltoid from its insertion, passing it under the humerus and attaching it to the anterior border of the deltoid near the coracoid process, forming a sling. These operations, I believe, with various modifications have been used in the past with varying success, no one of them outstanding, and none with any particular enthusiasts.

In the January, 1929, issue of the *Journal of Bone and Joint Surgery*, Nicola of New York reported his operation for recurrent dislocation of the shoulder with the following technic:

1. Incision begins over the clavicle above the coracoid process and passes downward along the anterior border of the deltoid muscle (the so-called saber incision).

2. The upper and anterior fibers of the deltoid muscle are divided close to the clavicle, and if more exposure is necessary, more of the clavicular portion of the deltoid may be stripped subperiosteally.

3. The pectoralis major muscle and the cephalic vein are retracted inward and the deltoid outward.

4. The tendon of the long head of the biceps is exposed up to its origin by dividing the transverse humeral ligament which holds the tendon in the bicipital groove, and the capsule is opened in the line of its fibers continuous with the transverse humeral ligament. The bicipital branch of the anterior circumflex artery accompanies the tendon in the bicipital groove.

5. The tendon of the long head of the biceps is divided about one inch below the cut margin of the transverse humeral ligament. Stay sutures of black silk are introduced in the ends of the tendon.

6. The elbow is kept flexed. A hole is drilled through the head of the humerus, beginning just below the transverse humeral ligament and coming out about the center of the articular surface of the head—one fourth inch drill being used.

7. A probe is passed through the tunnel, the arm rotated outward and the probe

*Read before the Sixty-third Annual Session of the Colorado State Medical Society September 16, 1933.

threaded on the stay suture at the proximal end of the tendon, the tendon pulled through the drill hole and united with the distal end.

8. The proximal end of the sutured tendon is fixed to the periosteum for tension.

9. The transverse humeral ligament and joint capsule are repaired and the wound closed, instrumental technic being used.

10. A simple Velpeau bandage is used for fixation for a period of three weeks, after which heat, massage, and motion are instituted.

Marcus Hobert has offered two suggestions in modification of the Nicola technic:

1. That the incision used be made one-half inch posterior to the anterior border of the deltoid, and that the fibers of the deltoid be separated in order to avoid injury to the cephalic vein in order to avoid dividing the fibers of the deltoid at their origin on the clavicle.

2. That the tunnel be made in the direction of the bicipital groove, rather than toward the center of the articular surface of the head of the humerus, so as to maintain, as near as possible, the anatomical position of the biceps tendon.

I can see little or no advantage to either of these modifications. Nicola in his original article reports one case done in 1928 with good results. Hobert reports three cases all done in 1932 in Cook County Hospital with good results.

I did one case, but sufficient time has not elapsed for a conclusion to be drawn. The

advantages of this operation as outlined by Nicola and not disproved are:

1. Simplicity of technic.
2. The fact that it is applicable to all types of cases from a pathological standpoint.
3. The convalescence is short and less arduous.

DISCUSSION

O. S. Fowler, M. D. (Denver): I think I hold some kind of a record on dislocated shoulders and reducing. One time when I was an interne, word was called for an interne quickly. A patient was leaving the hospital who had no right to leave at that time. He had a mental aberration. He was a young man. In getting him back to bed, he struck at me with his left arm and dislocated his shoulder. I reduced it. He struck at me again and I reduced it. That process went on until I had reduced his shoulder six times in probably less than five minutes.

I think these cases of non-healing or improper healing of the bones or changes should have the internal glandular system investigated because a good deal of work has been done along this line showing that bone repair has to deal very markedly with various of the internal glands.

Gerald B. Webb, M.D. (Colorado Springs): Dr. Fowler spoke of his record on land. I believe I have a record on a railroad train. Coming out on the Twentieth Century from New York to Chicago last year, wherein one registers as one does in a hotel, I was called at half past seven in the morning up to the barber's car. There was a powerful man who had been taking a shower bath and had dislocated his shoulder.

Fortunately for my general practice, I remembered how to do it and after quite a struggle and effort, I got it replaced. I went back to get my breakfast and the barber came back to me and said, "That man has done it again."

I was going to get off at Englewood, and was just getting off the train when I was called again. I had warned the man not to put on his clothes; but he dislocated it again and three times on the Twentieth Century I had to reduce the man's dislocated shoulder.

POST-TRAUMATIC OSTEOPOROSIS OF THE CARPAL BONES*

DUVAL PREY, M.D., and JOHN M. FOSTER, JR., M.D.
DENVER

Osteoporosis of the carpal bones is a definite disease entity, characterized by rarefaction, pain, and disability of the wrist. Kienboch, in 1901, described the x-ray findings in this disease, although as early as 1843 Peste had reported a case. With the advent of the x-ray and its more general employment, many cases have since been presented, particularly by Sudeck, Nonne,

Buchman, Leriche and Fontaine. However, as this disease is undoubtedly more frequent than was formerly supposed, and is habitually overlooked, we think it both wise and judicious to summarize our present knowledge of the subject.

In order to understand osteoporosis of the carpal bones in its entirety, we must fully appreciate the effects of trauma to these bones. As a fracture of the scaphoid and semilunar bones represents 99 per cent of the carpal fractures reported, only these two

*Read before the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs, September 16, 1933.

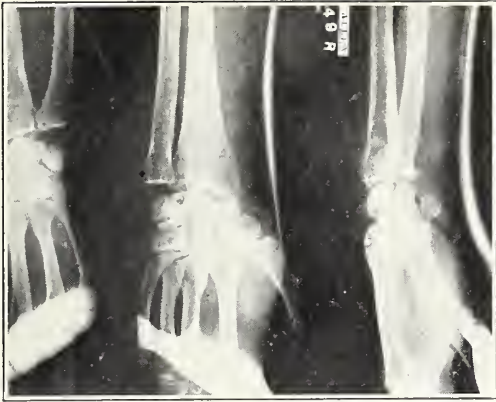


Fig. 1. Roentgenogram showing a fracture of the scaphoid with osteoporosis of the semilunar and cuneiform.

will be considered, although the same factors may be applied to the others. The scaphoid is the most commonly fractured, and this fracture is usually of the snap-waist type, for the reason that the bone has a narrow mid-portion. The semilunar, on the other hand, is more frequently dislocated but is not as commonly fractured. It occurred only thirteen times in 14,000 fractures reported from the Muller and Oberst's clinics and the University of Pennsylvania.

These fractures are ordinarily caused by falling on the hand, with the palm extended and the wrist in slight radial deviation, thereby pinching the scaphoid between the head of os magnum and lower end of the radius. These fractures, if neglected, are frequently associated with osteoporosis of the carpal bones, which will produce a permanent disability of the wrist, varying from 30 per cent to 50 per cent.

The symptoms of a fracture of the scaphoid are obliteration of the tabatiere or anatomical snuff-box, tenderness in this area, sometimes a slight crepitation, pain on flexion and extension (although pronation and supination cause no distress), and what is known as a positive percussion test. This sign is considered positive when pain is elicited upon tapping the middle metacarpal while the fingers are flexed and with the hand in radial deviation, while tapping the same metacarpal with the hand in ulnar deviation causes no distress. This same test is positive in fractures of the os magnum and semilunar. With only these symptoms,

which are all comparatively mild and may follow even a slight trauma, we are likely to consider it merely a wrist strain; by neglecting an x-ray picture we may completely miss the diagnosis which automatically prevents the proper treatment. Do not forget that an assured percentage of these neglected fractures result in a 30 to a 50 per cent wrist disability, and therefore it is imperative for us not only to keep this possibility in mind, but to search most diligently for a fracture of the carpal bones in every case of a traumatized wrist.

In the neglected or chronic cases, we have an entirely different syndrome, for after the acute symptoms have subsided, there is a variable length of time during which the wrist seems to be normal, and then there develops a constantly, although insidiously, increasing disability. The symptoms of the chronically disabled wrist are pain of a constant character increased by motion, a weakened hand grip and occasionally an associated atrophy of the muscles of the forearm. Furthermore, the x-ray picture discloses areas of rarefaction in one or more of the carpal bones, usually in the semilunar, called Kienboch's disease, or in the scaphoid, designated as Priester's disease.

Why a neglected fracture of the carpal bones fails at union is understandable when we realize that constant motion and poor approximation will prevent or delay union if applied to any bone in the body. However, this is not the whole story, for the reparative power of the short bones, particularly the carpals, is not equal to that of the long

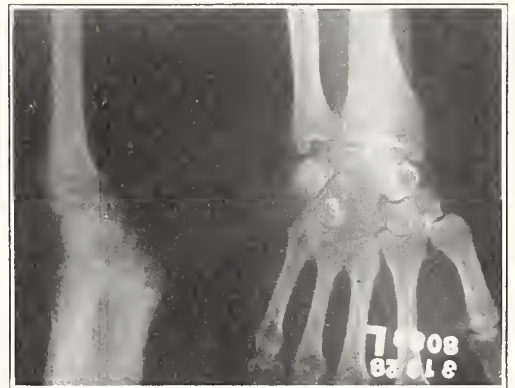


Fig. 2. Roentgenogram showing dislocation of semilunar bone with beginning decalcification.

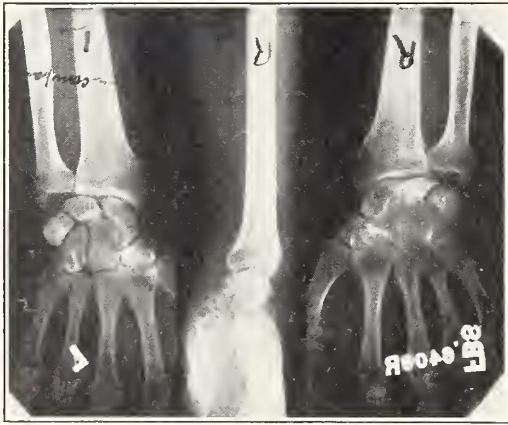


Fig. 3. Roentgenogram (right) showing an osteoporosis as well as a sclerosis of the semilunar. Normal (left), for comparison.

bones. In this connection, we should like to cite the experimental work of R. W. Johnson, who both fractured and traumatized the scaphoids as well as the corresponding radii, in a series of dogs, and then sacrificed these animals at definite intervals of time up to three months. His results showed that the carpals healed exactly as the long bones, except that the reparative process was neither as extensive nor as rapid. Many authors have suggested that the healing is further delayed because of an interference with the blood supply to the carpal bones, the nutrient arteries necessarily being injured by the trauma to the posterior ligaments. This theory is no longer tenable, as experimental work has shown that the blood supply is not embarrassed. It has been shown experimentally by Fontaine and Leriche, that trauma may be followed by either a vasodilatation or vaso-constriction, slight trauma being more likely to result in vasodilatation. It is, therefore, suggested that this different traumatic reaction explains the various clinical pictures of this disease.

Certainly it must be accepted that bone absorption cannot take place without an hyperemia. The most acceptable hypothesis for the osteoporosis is that suggested by Leriche—namely, that all peripheral traumas are accompanied by a disturbance of the vasomotor mechanism, which he terms a "traumatic axone reflex." The pathogenic sequence then is trauma, giving rise to a vasomotor disturbance which, if persistent,

will cause an absorption of bone. Another theory regarding the etiology of the osteoporosis is that it results from prolonged immobilization, the rarefaction being due to inactivity and a lack of functional stimulation. Unfortunately, it is extremely difficult to accept this theory when it is appreciated that many cases which have been immobilized over a long period of time develop no areas of rarefaction, while other cases, that have never been immobilized, develop an osteoporosis.

Trauma, therefore, either mild or severe, seems to be the important etiological factor. Further emphasis is given this hypothesis when we consider that this disease is seen most frequently in the second and third decade of life, that it is five times more common in men than in women, that it usually involves the right wrist, that it is most common among the laboring classes, and that over 90 per cent of all the cases reported either give a definite history or a positive x-ray finding of a previous injury. Further, osteoporosis of the carpal bones is most commonly seen in the semilunar, and we know that this bone is repeatedly put under pressure and strain and is frequently dislocated. This, of course, will often reduce

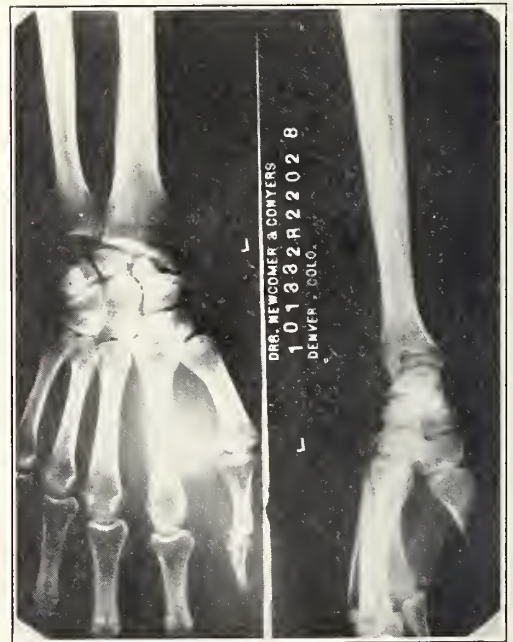


Fig. 4. Roentgenogram showing an osteoporosis of the semilunar, associated with an old ununited fracture of the scaphoid.

itself spontaneously or may be reduced by the individual innocently.

It must be clearly appreciated that the proper treatment of the original injury is of paramount importance. If a fracture is present, it should be corrected by reduction and proper immobilization. David Berlin, in a most excellent paper read before the American College of Surgeons in 1928, demonstrated that in fractures of the scaphoid the fragments were only in proper approximation when the hand was immobilized in 40 per cent extension and slight radial deviation. This is because extreme extension caused an over-riding of the fragments and the slightest flexion their separation. This position should be maintained from 4 to 6 weeks, depending upon the age of the patient and the type of fracture. In the event of a dislocation of a carpal bone, it

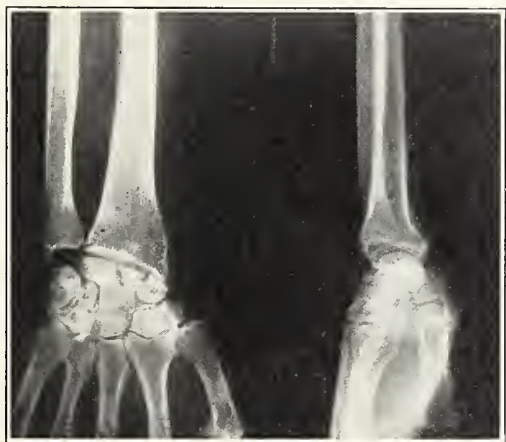


Fig. 5. Roentgenogram showing areas of rarefaction in the semilunar, os magnum, and scaphoid, plus an old fracture of the scaphoid.

should, of course, be reduced at once, but failing this, the bone should immediately be removed. (Fig. 2.)

The treatment of the chronically disabled wrist, where the osteoporosis involves only one bone, has been, in the past, the complete surgical removal of the offending bone, because for many years conservative treatment has proved to be inadequate. However, Fontaine and Herrman recently have reported most excellent results in the treatment of post-traumatic osteoporosis limited to the distal part of the extremity by peri-arterial sympathectomy. This is indeed

most interesting and must be given our serious consideration. Particularly is this form of treatment applicable to those cases in which several of the carpal bones are involved. (Figs. 1 and 5). It must be further remembered that peri-arterial sympathectomy is of easy execution in comparison with the difficulties encountered in the removal of one or more of the carpal bones. Therefore, this method of treatment is applicable to most cases of osteoporosis of the carpal bones, and, should not sufficient improvement be obtained, the offending bone or bones can then be removed.

Accordingly, in those cases showing both pain and a limitation of motion, although one can promise with assured safety that the discomfort will be removed, one rarely expects to correct the limitation of motion disability. Fortunately, improvement does occur occasionally, but without enough definite regularity sufficient to permit its expectancy in every case.

Summarizing, the early recognition and proper immobilization of the acute injury will automatically minimize the percentage of cases showing a permanent disability. In the event that disability should occur, the proper treatment of the osteoporosis will not only completely relieve the pain, but will most probably invite a certain amount of functional improvement.

ABSTRACT OF DISCUSSION

Leonard Freeman, M.D., Denver: Painful osteoporosis of the carpal bones belongs to the general category of post-traumatic, painful osteoporosis. It is not confined to the carpal bones by any means, but involves sometimes the tarsal bones and is found near fractures. Its principal characteristic seems to be that it is due to trauma, which may be a very mild trauma. There does not have to be a fracture. There are swelling, pain and tenderness, and marked disability, particularly when the parts are used. This disability is so great, sometimes, that it becomes extremely disabling; also, when the part is hanging down, it becomes swollen and blue. A peculiar thing, however, about the swelling is that the contour of the part is not lost, as it is under ordinary circumstances. The most characteristic thing of all is that, when you take an x-ray, you find osteoporosis. This is not found at once after the injury, which is an important thing to know. It does not occur sometimes for two or three weeks, so that if the x-ray is taken immediately, the significance of the whole thing may be lost and the diagnosis not made.

Another thing is that this osteoporosis does not

confine itself to the bone that is injured or even to the part that is injured. For instance, in the wrist it may travel to the bones of the arm. It may involve only one bone in the wrist, or all the bones in the wrist may become rarefied. It may go clear up to the elbow, and if it happens to be in the tarsus, it may involve the bones of the leg up to the knee which may be extremely confusing in diagnosis.

One thing to consider is that it doesn't occur in all injuries, so there must be something peculiar in the individual. One man gets a blow on the tarsus, for instance, and he gets an osteoporosis that is painful and disables him. A hundred other men get blows upon the tarsus and don't get anything of the sort. It has a predilection for the tarsus and for the carpals, particularly. We don't know why that is. In the diagnosis it has to be carefully differentiated from tuberculosis sicca, from other injuries to the bones, and from specific troubles.

When we come to the treatment, it is a gloomy chapter. The treatment is unsatisfactory. In

fact, we make the diagnosis sometimes because the treatment is unsatisfactory. We go on and on with physiotherapy, immobilization of the part, etc., and nothing happens. The pain continues. The disability continues. So we begin then to suspect osteoporosis, because that is peculiarly refractive to any of the ordinary forms of treatment.

The principal thing to remember is that the thing often gets well of itself. About the time you get thoroughly discouraged about it, it begins to improve. But this improvement sometimes is delayed for weeks, months or even years, and then at the end of that time it isn't entirely satisfactory because an osteoarthritis of the joints in the vicinity is apt to develop.

That is why in these cases an early peri-arterial sympathectomy has been advised by Leriche. He seems to think that peri-arterial sympathectomy will cure all these cases, but it won't. Peri-arterial sympathectomy theoretically ought not to cure anything, but it does cure some things, nevertheless.

PROTECTION OF EMPLOYEES AGAINST INFECTION IN TUBERCULOSIS HOSPITALS AND SANATORIA

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Ever since Hippocrates made his first masterly description of tuberculosis some time between 460 and 376 B. C., the nature of the infectiousness of this disease has been a dread and a mystery to laymen and to many physicians. In the second century of the present era, Galen, one of the greatest physicians of all time, branded tuberculosis as a most contagious disease when he said, "It is dangerous to live with consumptives and with those whose foul breath imparts a heavy odor to the rooms in which they live." Such doctrine was indeed very fortunate for the human race, for Galen's teachings were considered supreme authority during the subsequent fifteen centuries. Crude as the methods of prevention must have been until the advent of the nineteenth century, there is no doubt that this knowledge helped considerably in diminishing the incidence of tuberculosis. However, it cannot be denied that the lack of more intelligent information until very recently concerning the exact mode of transmission of tuberculosis wrought hardships upon thousands of tuberculous patients all over the world and in many in-

stances retarded recovery and even hastened death. Neither the profession nor the laity considered the psychologic effect on people physically ill but with sound mentality to be relegated to a life of isolation, not unlike lepers, when such extreme measures were never justified. Even today there is still considerable stigma attached, to tuberculosis and, laudable as may be the anti-tuberculosis efforts of health agencies, a patient even when physically fit is not permitted to engage in a remunerative occupation as long as the sputum contains tubercle bacilli.

Assuming that such patient has had sanatorium training and is otherwise intelligent, to what extent is he a menace to the health of others? What are the potential or actual dangers to healthy people who have to come in contact with patients suffering from active pulmonary tuberculosis? This is not by any means a new question; it has agitated the minds of the best clinicians for many years. As far back as 1907 Saugman¹ investigated this problem by sending out questionnaires to various institutions on the Continent. He found that of 174 healthy physicians who had spent an average of three years in a sanatorium and whose after history was traced for three and a half years, two or at most three were attacked

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with the disease, but all of them recovered; five died of other diseases and 166 remained healthy. Of sixty-six laryngologists who had a more intimate contact with the tuberculous because of the very nature of their work, one with a previous history of tuberculosis, after seventeen years of intense activity in his practice, was in excellent health and the rest had continued for a period of four years in their practice and did not show any evidence of clinical tuberculosis. A similar paradoxical report was issued some time before from the Brompton Hospital of England where, during the early years of its existence, the hygienic environment was not of the very best. Fishberg², in 1915, called attention to Saugman's¹ work and cited his own experiences at the Montefiore Hospital of New York where, for over a period of twenty years, not one case of clinical tuberculosis could be traced directly to contact infection.

Infection Versus Disease

Perhaps at this juncture it might not be amiss to make a sharp differentiation between infection and disease. By infection is meant laboratory and perhaps x-ray evidence that the human body has had a successful encounter with the tubercle bacillus, whereas disease means the manifestation of active symptoms. Unmistaken evidence of infection is obtained by means of the tuberculin reaction or the so-called Pirquet test. A positive reaction is indisputable proof that the body is harboring somewhere a focus containing tubercle bacilli, but that focus is usually well encapsulated and thoroughly separated from other structures. Such focus is most frequently present in the lymph nodes within the chest or in the lung proper and, at times, can be detected by means of the x-ray.

Incidence of Positive Reactors

Numerous studies have been made on the incidence of positive reactors. It has been found that with increasing age, the incidence rises so that from 50 to 75 per cent of all children of school age give a positive reaction and by the age of 21 the incidence of positive reactors, particularly in urban communities, is nearly 100 per cent; yet, as is well known, only about 1 per cent of the

population develops manifest tuberculosis. From this can be readily seen that the vast majority of positive reactors rarely develop tuberculosis.

The Significance of the Tuberculin Reaction

Until ten or fifteen years ago, the prevailing medical opinion was that a positive tuberculin reaction represents to some extent a varying degree of immunity or resistance to the disease. In fact Fishberg², in discussing the rarity of hospital infection in tuberculosis, states, "the hospital staff in institutions for tuberculosis are adults who, like the others, have been infected during childhood. They are thus immune to infection or superinfection just like those who have passed through an attack of measles, scarlet fever, typhoid and syphilis, and cannot be reinfected with the virus of these diseases." This statement was based upon experimental research which showed that an animal infected with tubercle bacilli cannot be reinfected either with the same strain of organism or with different strains. Since over 90 per cent of people past the age of 20 show evidence of immunity as demonstrated by the positive tuberculin test, there is little danger of reinfection. In other words, exogenous tuberculous infection, that is infection from outside sources, was considered a remote likelihood for positive reactors. The cause of manifest clinical disease in positive reactors was attributed to an internal or an endogenous spread, that is, the latent focus had for various reasons broken down and had spread to adjacent or remote structures of the body.

The Problem of Adult Negative Reactors

A new problem, however, has arisen as a result of more effective health measures in the past two decades which brought about a steady decrease in the incidence of positive reactors. If the doctrines referred to above are correct, it is plausible to assume that the adult negative reactor has no immunity and consequently is as susceptible to the disease as an infant. Armstrong's famous Framingham health demonstration showed in ten years a decrease in reactors of 25 per cent for the same age group. Similar results have been obtained in other health demonstrations staged in various

parts of the country. According to Slater³, the incidence of positive reactors in some rural communities is only 9 per cent. Recent reports from various urban centers indicate a figure of from 25 to 35 per cent.

The problem, therefore, resolves itself how to protect employees, nurses and medical students who are negative reactors and who have to come in contact with tuberculous patients. Heimbeck⁴ made the first complete and careful study on the relative incidence of clinical tuberculosis among student nurses, both among positive and negative reactors. He made the observations at the Ullevål Municipal Hospital at Oslo, Norway, where there is a division containing 300 beds devoted exclusively to tuberculous patients. The training school for nurses received every year 110 pupils, the average age being 21. They all resided in the hospital and hence lived under similar conditions. All of them had to work in the tuberculosis division for an average period of six months. Heimbeck found that only one-half of these women, two-thirds of whom having come from towns and one-third from the country, gave a positive tuberculin reaction. All the nurses were thoroughly examined when they started work at the hospital and were found to be healthy. The only difference was in the Pirquet reaction and, barring this exception, they seemed alike and gave no histories of illness or suspicious symptoms of tuberculosis. By the end of the three years' training period, all gave a positive reaction. In other words, 50 per cent of the student nurses became infected—not diseased—during the period of training. During the years 1924 to 1926 inclusive, 337 pupil nurses were accepted for training. Of these, 152 gave a positive Pirquet reaction and 185 a negative reaction. Practically all of them acquired a positive reaction at the completion of training. Among the 152 positive reactors, only three cases of clinical tuberculosis developed during training, while of 185 negative reactors 53 or 28 per cent developed manifest tuberculosis during the same period. Heimbeck concludes that the resistance of the positive reactor group against the infection in the hospital can be attrib-

uted only to their previous infection which must have produced immunity against a new tuberculous infection. This phenomenon conforms to the observations made by Koch and since by other observers that an animal once infected with tuberculosis is immune to some degree against subsequent exogenous reinfection. Heimbeck's remedy for the negative reactors is the vaccination with BCG which, in the majority of cases, confers an artificial immunity such as obtains in those who had accidentally become infected. By means of BCG vaccination, Heimbeck was able to reduce markedly the morbidity of tuberculosis among the negative reactor group.

BCG Vaccination Not Without Dangers

But BCG vaccination has not gained favor in this country either for infants or adults. Experimental research by Petroff⁵ at the Trudeau Sanatorium showed that these apparently innocuous bovine tubercle bacilli which constitute the basis of the BCG vaccine do, at times and under certain circumstances, become virulent; consequently its use is not altogether without danger. The problem of protecting employees in tuberculosis hospitals or sanatoria in this country is, therefore, all the more perplexing. That the incidence of negative reactors in this country is rapidly on the increase has already been mentioned. Myers⁶ of Minnesota confirmed in essential details Heimbeck's work, and he points out the dangers to pupil nurses and medical students since he has noted a high morbidity among non-reactors. Myers speaks of a more adequate contagious technic. He evidently believes that the usual precautions carried out in the average well-regulated tuberculosis hospital or sanatorium are not adequate, but he does not specify what added precautions should be taken. Geer⁷ found only 30 per cent of nurses entering the Ancker Hospital Training School at St. Paul positive reactors, whereas practically all of these nurses showed a positive reaction before completing training. In six of 110 nurses, or 5.5 per cent, tuberculous disease developed during the first two years of training and of these six, five gave a negative reaction on entering the training school. Geer, like Myers, urges a rigid contagious

technic, especially in those communities in which the incidence of tuberculous infection among young adults is very low.

The Common-Sense Solution

A more moderate and practical attitude toward this controversy is taken by E. R. Baldwin* of Saranac Lake, who has been a life-long student of the transmission of tuberculosis. Accepting the three principal methods of transmission of bacilli from the sick to the healthy, namely dust, droplets as they escape from the unguarded mouth, and infection by swallowing, Baldwin found by experiment that droplets small enough to float in the air contained very few bacilli and often none at all. He believes that not enough attention has been paid to large drops of sputum from the uncovered mouth which later become dry and get into the dust. In his opinion, dust containing bacilli constitutes the chief source of infection when contact is prolonged. This has also been shown by the French and at the Koch Institute at Berlin. Nevertheless, the number of virulent bacilli removed by a vacuum cleaner in nursing homes and small hospitals in Saranac Lake were so slight as to make the inoculation of guinea pigs very uncertain. The conditions in those boarding houses and hospitals were not unlike those in the average hospital or sanatorium for advanced cases and the patients were only of average intelligence and cleanliness. Investigations by other research workers at the Saranac Laboratories showed that the washing of dishes and other eating utensils with ordinary warm tap water and soap is quite adequate to render them free from tubercle bacilli. In Baldwin's opinion, these observations account for the fact that no case of pulmonary tuberculosis has ever developed among the many hundreds of healthy employees at the Trudeau Sanatorium during the forty-five years of its existence.

It can thus be seen that on this controversial subject there are two groups, one constituting the alarmists such as Heimbeck, Myers and Geer, and the other, the conservative group as represented by Saugman, Baldwin and Fishberg. It seems that a happy medium should be found to coordinate and correlate these two views. In our experi-

ence covering a period of fifteen years of intimate association with tuberculosis sanatoria, where there were in steady employment 150 people with an annual turnover of approximately forty new employees, only two cases of clinical tuberculosis could be traced presumably to contact infection. However, in one of these cases a definite history of exposure to a tuberculous step-mother was obtained and the x-ray film showed definite tuberculous lymph nodes in a semi-calcified state. The second case apparently developed the disease at the institution. Such an incidence must be considered exceedingly low and certainly far below what obtains among people engaged in other occupations far removed from sources of tuberculous infection.

Since dust infection constitutes one of the principal dangers, it would seem that every effort should be made by administrators to reduce this source of infection. This can be accomplished by paying attention to the proper equipment of the patient's room. A room housing a tuberculous patient should have no carpets, no curtains, and each article of furniture should have castors so as to make it possible to move it from place to place. While it appears that the vacuum cleaner may be used with perfect safety, if the sack containing the dust is properly handled and the dust later disposed of by incineration, it is a much better plan to have mastic floors or linoleum instead of carpets and to use sweeping compound which gives rise to little or no dust. Walls and ceilings in a tuberculosis institution should be washed at least once in three months or oftener, depending upon the time of the year and other climatic factors. It is a mistake to ask either patients or attendants to wear gauze masks, since such practice inculcates exaggerated fears in both. However, it is quite possible and, in fact, has become a routine training to have every patient cover his mouth and nose with a paper napkin during coughing or sneezing. These paper napkins are placed temporarily in a bag and later consigned to the incinerator. Only one person on each floor or division should be assigned to the duty of collecting the sputum cups once or twice

daily for proper disposal. The sputum cup holders should be handled by the same employee, preferably a nurse, who, when through with the disinfection process, should, in addition to soap and water, immerse her hands in an antiseptic solution. Employees must be instructed to wash their hands thoroughly with soap and water each time they handle either a sputum cup or some other article believed to be contaminated with bacilli. Food of any kind must likewise not be touched by the nurse if the hands had not been previously washed. It has been found that soap and water are quite an adequate protection and additional antiseptics is not necessary. An additional precaution is the use of gowns over the uniform while in active attendance upon the patient.

The Importance of a Well-Regulated Life

The mode of life is an important factor. It must not be assumed that protection against outside infection, which is ordinarily afforded by former disease, is an absolute one, for immunity to tuberculosis after all is under all conditions relative. Overwork, lack of sleep, various indulgences, and worry and anxiety are important factors that can break down the best of constitutions, whether previously vaccinated by mild infections or not. This applies to any hospital personnel, whether in a tuberculosis sanatorium or general hospital.

A great deal has been written on the incidence of tuberculosis among medical students and young interns. The reported statistics are undoubtedly true, but one wonders whether the hard work and the economic worries to which many of these young men are subjected are not potent factors in breaking down their resistance to tuberculosis. It is common knowledge that the young intern, particularly when ambitious, works very hard from twelve to sixteen hours daily, and hospital authorities do not take measures to institute a rigid hygienic regimen. In addition to their arduous duties, many indulge in too much social activity resulting in insufficient sleep. Under such circumstances, tuberculosis cannot be attributed solely to contact infection. As a matter of fact, Gordon and Cashman⁹, in a

study completed in 1930 at the Phipps Institute in Philadelphia, report that of 733 former workers in a hospital for chest diseases, the incidence of tuberculosis acquired after the termination of service was found to be less than 2 per cent. Quite a large number of the nurses gained in weight during the period of training, and they attributed this gain in weight to a rich carbohydrate diet and rigid regulation of work and rest. It should, therefore, be the duty of hospital executives first thoroughly to instruct pupil nurses, medical students and interns, as well as other employees, in the essential principles of personal hygiene and the precautions to be exercised when attending tuberculosis and particularly when handling material likely to be infected, before they are permitted to attend such patients. It is a decided mistake and a gross injustice to pupil nurses to permit them to work in the tuberculosis ward before they had been adequately trained in hygienic precautions and before they had received instructions in the nature of the disease.

The Danger of Tuberculous Infection in the General Hospital

If there is a potential danger of tuberculous infection in tuberculosis hospitals and sanatoria, there is as much danger, if not more, in general hospitals and clinics where tuberculosis is never expected. There is no doubt that open cases of tuberculosis, which are not discovered, frequently find entrance for acute intercurrent medical and surgical diseases. Under such circumstances, when adequate precautions are not taken, there is considerable danger to attendants to contract the disease. A greater effort should, therefore, be made to discover unsuspected open tuberculosis cases in all institutions. Every patient, whether admitted to the medical or surgical division, should have a careful chest examination, and the slightest suspicious physical findings should call for an x-ray film of the chest. The x-ray in many instances is more important than the stethoscopic examination, for the stethoscope can find tuberculosis but not exclude it. Every patient who coughs should be instructed in the proper use of the paper napkin for pro-

tecting his mouth; a sputum cup should be a part of his equipment instead of the emesis basin, and the sputum should be sent to the laboratory to be examined for tubercle bacilli. Such precautions will do a great deal in preventing tuberculosis among the young adults entering the medical and nursing professions for in tuberculosis institutions the contagious technic is very well inaugurated and employees are properly instructed in the precautions they are expected to carry out.

Essential Precautions

Generally speaking, based upon the long experiences of well-known sanatoria in Europe and America, it is safe to state that the simple sputum hygiene along with the regulations as outlined above are safe protection for the average employee. Special precautions, however, must be exercised for negative reactors. Young people between the ages of 18 and 35 who are about to start work in a tuberculosis hospital, and, for this matter, in a general hospital, should have a tuberculin test and also, if possible, an x-ray film of the chest. If the tuberculin reaction is negative, such individual should exercise more effective precautions, particularly with respect to his mode of life. Regular hours of rest and sleep should be insisted upon. A periodic physical examination at least every six months should be enforced and a checkup of the skin reaction and an x-ray film made. The non-reacting employee who, in the course of service, acquires a positive tuberculin reaction, need not be alarmed, for in the absence of symptoms it simply indicates a mild infection showing a certain degree of immunity. However, if slight symptoms become manifest, such as frequent colds or slight pain in the chest, a painstaking investigation should immediately be undertaken. Even a mild attack of pleurisy should be sufficient cause for an interruption of work for several months, for in the majority of such cases that symptom often means the onset of clinical tuberculosis, even if physical examination and the x-ray film are entirely negative. In the absence of symptoms for a year or longer after the manifestation of a positive tuberculin

reaction, such individual is in no more danger of developing clinical disease than those who showed a positive reaction upon entering service.

Summary

The hygiene effected in every well regulated tuberculosis institution is quite adequate for the protection of employees against contracting clinical disease. There is yet no known measure to prevent tuberculous infection which, in the majority of people, confers immunity rather than disease, if proper living regulations are enforced. Young adults, especially those from rural communities, should be subjected to routine physical examination, including the tuberculin test and x-ray film of the chest, before they are permitted to attend tuberculous patients. For negative reactors, a systematized health service is essential, consisting principally of periodic examination at least every six months and checkup by the tuberculin test and an x-ray film of the chest. Non-reactors who acquire positive tuberculin reactions should be especially watched and their mode of life regulated in accordance with the latest principles of hygiene. By following these procedures employees in tuberculosis institutions are in no greater danger of contracting clinical tuberculosis than are employees in general hospitals where tuberculous patients are not accepted.

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AMEBIC DYSENTERY: DIAGNOSIS AND TREATMENT*

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The anxiety that has arisen over the spread of amebic dysentery throughout the north temperate zone is not surprising to those who have been studying the disease since the first paper on the subject was published by Sistrunk in 1911. Since that time many contributions have been made on the subject by other members of The Mayo Clinic, workers in California, and particularly has Colonel Craig been active in warning physicians that this disease is entrenched both north and south of the tropics. For more than fifteen years some of the patients with the most severe cases of amebic dysentery seen at the clinic have come from Saskatchewan. I believe that the incidence and severity of the disease is greater in the tropics than in the North, but the viciousness and tragedy that has marked the course of this recent epidemic serves to warn us that it is also a serious problem in the North.

Entamoeba histolytica is the only ameba that will produce dysentery or hepatic abscess. The many other amebas that have been identified in feces of man are not pathogenic, yet have served to make identification of *Entamoeba histolytica* more difficult. Some few years ago, the government was embarrassed by the number of claims for disability that were being granted on the basis of amebiasis. Considerable difficulty ensued before it was possible to establish a ruling so that now most of these claims are not allowed until a marked microscopic slide has been passed on by experts.

Prevention of spread of the disease, as Magath expressed it, is "the old question of preventing the excreta of one human being from finding its way into the food and drink of another; apparently civilization has not progressed to the point where it can be prevented." Transmission of the disease is by cysts which are relatively resistant and which may live for months in water or may pass through the gastro-intestinal tract of the house fly without injury. The motile

or vegetative forms die rapidly after being passed from the bowel. It has been proved that the fly can spread the disease. Infested water is also a mode of transmission that accounts for epidemics. However, I think it is being established that the most common method of transmission is from food which has been contaminated by the hands of carriers or of those who have the disease. Certainly the Chicago epidemic has shown the tremendous parts played by carriers who have to do with foods. It is somewhat startling to learn that two of the food-handlers in this epidemic were carriers who had been identified as such in a smaller Chicago epidemic in 1927. Figures as to the incidence of *Entamoeba histolytica* in the North vary; Craig has expressed the belief that "the evidence is certainly sufficient to warrant us in stating that 1 per cent of the population, or 1,200,000 are harboring *Entamoeba histolytica* in this country," and our figures which give a fairly representative cross section of the country, indicate that the infestation is not greater than 2 to 3 per cent. In any event a large number of people harbor these parasites, and this re-emphasizes that tropical dysentery is not a tropical disease.

The incubation period of the disease is variable. The first definite proof of this was that of Walker and Sellards, who fed cysts to volunteers and found that symptoms developed on an average in 64 days. In this recent epidemic, symptoms appeared in 5 to 95 days. The cysts enter the colon where they divide and tend to establish headquarters in the dependent portions of the bowel, namely, the cecum, rectum and sigmoid. The degree of ulceration will depend on the virulence of the ameba and the resistance of the host. The onset is characterized by abdominal cramps, diarrhea, usually with blood—in this epidemic—and if there is proctitis, rectal tenesmus. Some patients have had symptoms appear following purgation, and have gone along several days attributing the persistence of diarrhea to the purging

*Read before the Medical Society of the City and County of Denver, December 19, 1933.

and the bleeding to hemorrhoids, ever a convenient and a dangerous opinion.

The recent publicity, both in lay and in medical papers, no doubt will suggest the possibility to everyone that the *Entamoeba histolytica* may be the cause of a case of diarrhea, but it may be more difficult to recognize the amebic abscess of the liver which is likely to follow this epidemic. It is true that an attack of dysentery usually precedes the hepatic complication; not infrequently there may be no such symptom to afford a clue. Any patient, with or without a history of diarrhea, who begins to complain of a pain in the upper right abdominal quadrant and who has an irregular fever and leucocytosis, must be suspected of having a hepatic abscess. Hasty surgical interference in such a case is attended by a high mortality rate, as has been attested to in the past few months.

Diagnosis of the disease rests on identification of the parasite. This immediately introduces a difficulty, for relatively few laboratory workers are competent to identify *Entamoeba histolytica*. Not infrequently I see patients who have been thoroughly and skillfully studied clinically, but the parasite was not identified because stools had been examined only by internes or general laboratory technicians. Medical students of the South are fairly well taught how to examine stools for parasites or ova, but as one goes farther north there is less and less emphasis on this work and one hears more of food-fragments, occult blood, bacterial flora, and a host of other awe-inspiring revelations to be found in the stool. The late Dr. Todd gave us excellent instruction in this line of work, so that some of us, at least, cannot blame our school for inadequate training.

I am not qualified to discuss the morphology of the parasite, but I think it well to suggest that the examination is facilitated by examining the stool following administration of magnesium sulphate. If the patient is having frequent bloody discharges, the material, without administration of salts, is satisfactory for examination. Magath considers that examination of a series of six formed stools or three liquid ones will allow diagnosis in about 100 per cent of cases.

If rectal ulceration is present, a smear obtained from the base of an ulcer, through the proctoscope, will reveal many parasites. At Tulane, students are taught to do this first and, if they do not find ulcers from which to obtain swabbings, then to examine the stools. Culturing of the stool has been advocated but is not necessary as a routine. Craig's complement fixation test has been proved to be satisfactory, but it is an intricate test and the antigen is so difficult to prepare that Craig told me it would not be practical until an easier method for preparation of the antigen was devised.

Proctoscopic and roentgenologic examinations should supplement examinations of stools, to make certain that one is not dealing with associated ulcerative colitis, or that the parasite is not purely incidental to a bleeding, ulcerating carcinoma. The punched-out, discrete amebic ulcers, especially at the margins of the valves, are all but pathognomonic. The mucosa between the ulcers is usually normal in cases of amebic ulceration; it is not, in cases of chronic ulcerative colitis. The barium enema in amebic colitis gives less in characteristic findings, but one may note cecal spasm and occasionally diffuse involvement of the colon depending on the extent and severity of the ulceration.

In the face of this epidemic, however, one must not overlook the fact that appendicitis, cholecystitis, ulcerative colitis, and cancer of the colon and rectum continue to be seen. Although right abdominal pain or rectal bleeding may be caused by amebic ulcers, yet one must avoid hasty conclusions. Practically all the deaths in the Chicago epidemic occurred after surgical intervention, yet we know full well the deaths that may follow delay in operating in cases of appendicitis.

In the chronic cases, one must be cautious not to attribute vague abdominal distress, reflex gastric symptoms, arthritis, or functional phenomena to *Entamoeba histolytica*. Cysts may be present in the stool and have nothing to do with the symptoms complained of by the patient. Benefit in some cases of diarrhea may not follow anti-amebic treatment. It is a fairly safe rule to assume that if diarrhea is not controlled by a course of

emetine, further studies and other treatment are indicated.

Prophylaxis

"What can I do to protect myself?" or "How can I prevent the rest of my family from contracting the disease?" are two common questions. The answer to the former depends entirely on the efficiency and thoroughness of the local boards of public health. The ideal would be to have everyone who is employed in a public eating place subjected to examinations of his stool. It would certainly help to insist that signs be placed in lavatories, instructing the employee to wash his or her hands with soap and water before returning to the kitchen. Although soap and water is a marvelous antiseptic, the childhood aversion to its use is carried on into adult life by a surprisingly large number of people; hence we shall continue to have amebic cysts placed on our butter, salads, rolls, and so forth. It has always been a good rule not to drink from wells or streams unless one knows that sewage does not drain into them. Typhoid fever taught that, or should have done so.

The intestinal discharges of a patient who is suffering from this disease should be mixed with an antiseptic substance such as compound solution of cresol. Exposure to dry heat of 68° C., for five minutes, will destroy both cysts and motile forms, and even drying alone will kill them in a short time. Boiling of bed linen, dishes, and so forth, as in any contagious disease, is important. If the patient is ambulatory, careful washing of his hands after going to stool will minimize the danger of transmitting cysts.

Treatment

Control of acute symptoms of amebic dysentery by administration of emetine constitutes one of the apparent miracles of medicine. To Sir Leonard Rogers is due credit for establishing, in 1912, the value of emetine. At first, great hopes were held that a cure for this disease had been introduced but as time has gone on it has been learned that only a third to a half of the patients treated by emetine are cured. Furthermore, persistence in the treatment with emetine is not without possible danger of producing myocardial injury or peripheral neuritis.

Bismuth emetine iodide was then introduced for oral administration, to supplement the emetine given hypodermically, but various reports such as that of Knowles, from Calcutta, and that of Willner, from China, confirm the reports of others of rather unfavorable results. It is scarcely necessary to state that ipecac, even in pills coated with salol, is an objectionable and almost cruel type of treatment now that emetine is readily available. It usually produces such nausea and vomiting that the treatment is heroic. Certainly it is no more effective in eradicating cysts than is emetine or bismuth emetine iodide. The parasitocidal action of organic arsenical preparations dates from the studies of Ehrlich. It was logical to try arsphenamine for amebic dysentery, and this, in conjunction with emetine, has proved more effective than emetine alone. The cost and time required for a course of arsphenamine were objectionable features, so that when organic arsenical compounds for oral administration became available, a satisfactory complement to the emetine was offered. Acartarsone (stovarsol), the methenamine derivative of meta-amino-para-oxyphenyl-arsenic acid (treparsol), and carbarsone have been recommended. Although there is no question that the percentage of cures is higher with treatment by emetine and arsenic combined, there is also the danger of arsenic poisoning. The acute manifestations of this occur in 3 to 4 per cent of cases in which arsenic is administered and usually develop after a few doses of the drug have been given; toxic erythema is the most common complication. This may progress to the stage of exfoliative dermatitis, and in a few instances, deaths from treparsol and stovarsol have been reported. As yet I have read of no complications due to carbarsone, but it has been used only a short time, and from its chemical structure, which is similar to those of both stovarsol and tryparsamide, I think complications may be expected. The late manifestation of arsenic poisoning is peripheral neuritis. This has occurred with stovarsol and probably will be noted with carbarsone, for the rate of excretion of the two drugs is about the same. Treparsol is

eliminated rapidly and I have not known of peripheral neuritis following its use.

In spite of the toxic effect of both emetine and arsenic, I think a combination of these drugs offers the best weapon, at present, for controlling acute symptoms and eradicating the parasite. The fact that this method will not bring about cure in all cases, as well as the fact that the drugs have toxic effects has led to investigation of other chemical substances. The two most widely known are yatren, also known under the various names of chiniofon, anayodin, quinoxyl, and vioform. These two drugs are of a series of quinoline compounds; yatren contains about 28 per cent iodine, while vioform contains both chlorine and iodine. Untoward complications from the use of these two drugs have not been reported. However, the use of yatren in the recommended dose of 3 gm. a day usually produces diarrhea. The expense of giving 3 gm. of it daily for a week, and repeating for one or more such courses, each after an interval of a week, must be considered. As vioform is a newer product, I can not compare its effectiveness with yatren, yet it is used in much smaller doses, namely 0.75 gm. daily for ten days, and a course is repeated after an interval of a week. Hence, the expense is less and no intestinal irritation is produced. Leake and others, who introduced vioform, have claimed that it is highly efficient and is superior to yatren as well as are the compounds of arsenic. It is hoped this is correct, but, until more reports are available, vioform must be considered only one of several weapons with which to fight this disease.

I have been employing the following regimen in active cases in which no specific treatment has hitherto been applied: 1. Emetine hydrochloride, 1 grain (0.065 gm.), is administered subcutaneously twice daily for three days, with an interval of a week, and then repeated. 2. At the same time, treparsol, 1 tablet (0.25 gm.) is eaten with each meal for four days. After an interval of ten days, a second dozen is prescribed, and usually a third dozen after another interval. 3. During the intervals of ten days between the courses of treparsol, I prescribe

1 capsule of vioform (0.25 gm.) after each meal. 4. Occasionally, if there is considerable abdominal distress and symptoms recede slowly, 1 dram (4 gm.) of bismuth subnitrate three or four times daily is advised.

This appears to be a fairly strenuous program. I take comfort in Colonel Craig's response to my question as to what drugs he favored: "Everything on which I can lay my hands." The acutely ill patient may need to stay in bed, but the treatment itself does not necessitate hospitalization. I do not employ medicated colonic irrigations. I can not see their rationale, nor am I convinced that they add much if anything to the result of treatment.

Diet is of no moment, other than it is merely common sense to order a simple type of food of low residue, during the active stage. However, with prompt diagnosis and administration of emetine, the bowels are usually acting normally in twenty-four to thirty-six hours, when the patient may resume his customary foods.

If recurrence develops, or if the patient has recently taken an unknown amount of emetine or arsenic, vioform or yatren are prescribed. I am in no position to establish the best form of treatment; if any method were perfect, it is obvious that there would not be so many drugs and regimens. I do believe that emetine is most effective if given in a peak dose; that is, 6 or even 9 grains (0.4 or 0.45 gm.) in seventy-two hours, rather than 1 grain (0.065 gm.) daily for ten days. It may be given intravenously, but results are so prompt and satisfactory with subcutaneous injection that I see no need to use a more hazardous route. However, a recent visitor at the clinic, who has practiced in India for twenty years, told us that he administers emetine intravenously in doses of 3 grains (0.2 gm.) daily for fourteen days and has seldom seen any complication. Following the course prescribed, stools are examined on three successive days. If the results are negative, a similar program at the end of another month, and then one more after two or three more months should fairly establish a cure. I think this is preferable to one weekly examination of stools for weeks.

Treatment of Carriers

If nothing else has been learned from this epidemic, the necessity of treating carriers has been emphasized, not only to protect themselves from possible trouble, but even more to protect others. As they have no acute symptoms, emetine is not essential and I have had satisfactory results from three courses of treparsol. Possibly vioform will afford the same result and danger of arsenic poisoning will be avoided.

Summary

Entamoeba histolytica has been recognized for more than twenty years to occur

north and south of the tropics. Transmission of the disease is by direct hand to mouth infection, by water, and by flies. The stools of food handlers, especially those in public eating places, should be examined. Washing the hands is of some help. A combined regimen of emetine, treparsol, and vioform has given satisfactory results. Carriers must be treated. Treatment is more likely to fail if a definite program of follow up treatment is not carried out. Amebic abscesses of the liver are likely to be more frequently encountered as a result of further scattering of *Entamoeba histolytica*.

THE RELATIONSHIP OF PHARMACY TO MEDICAL ECONOMICS*

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DENVER

Medicine and pharmacy are very old institutions. In fact, they date back to civilization as great or greater than ours. Realizing this to be true they apparently are inseparable.

My mission here has but one purpose—to promote a better understanding and a closer cooperation between our organizations. My subject was chosen in an effort to point out that there is really a need for closer cooperation between us. I wish it understood that what I have to say is said in a spirit of cooperation and not of criticism. "Medical Economics" is a enormous subject. It would be very difficult for any one person to enumerate all related problems of the medical profession, much less to offer a solution for each. With this thought in mind, I wish to speak on but one subject and offer what we think to be a simple and practical remedy.

This paper is to deal with the methods used today by unscrupulous manufacturers of proprietary medicines. It is to deal with the way in which our professions, unknowingly, are being enlisted as advertising mediums in their stupendous and gigantic campaigns, and in which no one profits except the manufacturer.

Broadly speaking, the drugs prescribed by American physicians come under one of two classes—official or nonofficial. The former are, in the main, old established preparations that are listed in the two books of official drug standards, the United States Pharmacopeia and the National Formulary. The Pharmacopeia is revised every ten years by a committee appointed by the United States Pharmacopeial Convention which is a body made up of delegates from the medical, pharmaceutical, and related organizations. In addition to listing certain substances and formulas of standard drug preparations, the Pharmacopeia also contains definitions and tests for identity, purity, strength, and quality of these preparations. The National Formulary is issued by the American Pharmaceutical Association; it contains, in one respect, the overflow of the Pharmacopeia. It also retains many valuable preparations discarded by the Pharmacopeia. The National Food and Drugs Act that went into effect in January, 1907, made the Pharmacopeia and the Formulary the official standards for the preparations that are described in them. The Bureau of Chemistry of the United States Department of Agriculture, acting under the powers given it by the National Food and Drugs Act, sees to it that all products claimed to be U. S. P. or N. F., come up to the requirements of

*Read before the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs September 16, 1933. Mr. Stodghill was guest of the Colorado Pharmacal Association.

strength and purity that are set by the Pharmacopeia and the Formulary.

Most advertised nonofficial drugs—that is, those not found in the U. S. P. or N. F.—are proprietary in character. In other words, they are protected by a monopoly obtained either by patenting or by means of trade mark. The majority derive their monopolistic protection through trade marks.

Fifty years ago, pharmacy was largely an art of mixing and compounding crude drugs, calling for but little research and small working staffs. Today the high grade manufacturer of pharmaceuticals has an expensive scientific staff and laboratories that work for months and years in perfecting a single drug or preparation of value in the treatment of disease. Only by some system of monopoly, either patent or trade mark, can he hope to meet this high overhead and expense. We should hold no enmity toward this type of manufacturer, because it is he who has produced some of the most valuable preparations that we have today, but we do have bones to pick with the manufacturer of preparations that have no scientific background or any individual therapeutic value. The mere compounding of two or more recognized drugs does not warrant such monopoly. The physician should never prescribe such proprietaries. The art of compounding should belong to the physician and pharmacist. This wolf in disguise is robbing us of everything that he can, even the right to think for ourselves. The products manufactured by such concerns are not commercially known as patent medicines—package medicines bearing trademarked names to be sold direct to the public. While they are package medicines and bear trademarked names, they are, ostensibly at least, sold only for physician's use. Yet, as a matter of fact, many of them so marketed have become as well known as Lydia Pinkham's Vegetable Compound and Carter's Little Liver Pills.

This led one shrewd advertising man to express himself, several years ago, on what he considered to be the future of the patent medicine industry. He said in part: "But the patent medicine of the future is the one that will be advertised only to doctors. Some of the most profitable remedies of the pres-

ent time are of this class. They are called proprietary remedies. The general public never hears of them through the daily press. All their publicity is secured through the medical press, by means of the manufacturers' literature, sometimes in the shape of a medical journal, and through samples to doctors. For one physician capable of prescribing the precise medicinal agent needed by each individual patient, there are at least five who prescribe these proprietaries. They are the chief standby of the country practitioner. Three-fourths of all the prescriptions received therefrom are for these proprietary remedies, and the pharmacist simply opens the package and writes a label. The original bottle is given to the patient; he sees that the remedy does him good, and when he feels a trifle run down again he goes to a drug store and buys another bottle, not troubling the doctor. He meets a friend on the street who is not looking well. "I know exactly how you feel," he says, "now just go and buy a bottle of ————. Best thing in the world! My doctor prescribed it for me, so it isn't a patent medicine." In this way the name of remedies advertised only to physicians get abroad to the general public. * * * The proprietary medicine of the future will be advertised through these channels. The medical papers will reap the harvest, and the physician himself, always so loud in the denunciation of patent medicines, will be the most important medium of advertising at the command of the proprietary manufacturer. In fact, he is that today.

Unfortunately the prophesy of this advertising man certainly came true, because in the last few years we unconsciously have been the best means of promotion of all proprietary medicines which have been detailed. When the detail man leaves several samples of a new proprietary with a physician, it is but natural for that physician to dispense the same to his poor patients, or perhaps to a patient with whom he is friendly. Later on, after the illness of this patient is cured, perhaps his next door neighbor becomes sick with symptoms similar to his own.

The psychology of the layman is that they like to dabble in medicine and cure the ills

of their family or their neighbors themselves. It is for this reason that the physician is frequently called to the bedside of a patient only when the latter is desperately sick. In treating his neighbor who is sick, who apparently has symptoms similar to what his own had been, at least in his own opinion, he will say, "You don't need to go to a doctor, I had exactly what you have and my doctor gave me so and so; just go to your druggist and get some of that and take it three times a day, like my doctor told me."

The result of this is two-fold. Some physician is deprived of a patient, or the preparation does not work on the neighbor and he calls in his doctor too late for anything to be done for him. In either case, the druggist is blamed for counter-prescribing. It is true, that there are some druggists who abuse their profession by counter-prescribing, but the large majority hand out medicines over the counter without prescribing because they are compelled to do so. I have had this experience a large number of times. A man or woman comes into my store looking at a sheet of paper and says, "Give me so and so," reading the name of a proprietary which the doctor had written there. There is therefore no way for me to avoid selling this proprietary. A physician should, if it is necessary for him to prescribe a proprietary with a name easily read or remembered by the patient, 'phone the prescription to the druggist with whom he does business. We think, if this practice were followed, that the criticism of the doctors against the counter-prescribing of their druggist would be largely eliminated.

I referred above to the service performed by the high-grade manufacturers of pharmaceuticals to science and to the medical profession in developing, after years of work, new proprietaries. These manufacturers intentionally adopt a name for their preparation which can be easily remembered by the physician, but unfortunately it can also be easily deciphered by the doctor's patients. When the detail man of these companies leaves samples with the physician, they do not expect the physician to deliver the sample to the patient in the original package. The sample is given to the physi-

cian so that he may see the composition of the proprietary, what it looks like, and so forth. It is expected of him that he remove the label or transfer that to some other bottle or package and write directions on the same for his patient without putting the name of the preparation thereon. It is no part of the program of this type of manufacture to mislead a physician into causing his own patients to become accustomed to self-medication. However, some doctors will say the druggist of today charges such a high price for filling prescriptions that patients cannot afford to pay for their medicine. It is necessary in some instances to give them free samples or to dispense medicine.

Permit me to point out to you why the cost of prescriptions in the last few years has been so high. Remember that drugs are more highly standardized than they have been in the past. So many preparations have been made in competition, one with the other, and so many detail men have left these preparations with different physicians, that the druggist is called upon to keep in stock a multitude of proprietary preparations of very similar formulas. Some of these stay on his shelves for a year with only one prescription being written by the doctor who first asked him to stock the same. That physician, in the meantime, has had his attention directed to some new preparation which he was told was similar but a little better. The same conditions exist with respect to some preparations listed in the U. S. P. and the National Formulary. I have been compelled to stock in my own store at least sixteen different preparations of digitalis, all of them U. S. P., but made by different houses. The stocking of this multiplicity of similar medicines creates the tremendous overhead of a prescription druggist and necessitates a correspondingly high charge for medication.

There is a way of eliminating this evil. The physician should tell their patients to take their prescriptions to the particular druggist in whom he has confidence. That druggist will become familiar with the preparations used by the physicians who send their patients to him, and the cost of hand-

ling the business will be greatly lessened. To those physicians operating in small towns of the state, and who complain that they do not receive proper cooperation from their druggist, we would suggest that when the drug store in their community changes hands and a new pharmacist buys out the old, pay that man a visit and see if he is not the type of man to whom he could entrust the filling of his prescriptions.

Our pharmacy laws have been improved in the last five years. The pharmacies all over the state have been subjected to rigid supervision, and we feel that the quality of service rendered to the public has been increased commensurably with the value of the medical service given to the public by the modern physician.

In conclusion, let me suggest that the problems of the medical profession, with respect to non-cooperation on our part, the registered pharmacists of this state, should be reported to their Association and passed on to the Colorado State Board of Pharmacy. We believe that our committees on cooperation should meet often and discuss our mutual problems. We are certain that this will bring about a closer cooperation between our Associations which will render a very pleasant relationship between the Physicians and the Druggists of this state. We hope that this suggestion may be followed and that these results may be accomplished.

CASE REPORTS

MESENTERIC THROMBOSIS OF THE ILEUM

W. E. BLANCHARD, M.D.
DENVER

When one looks up information concerning mesenteric thrombosis in the average text or surgical series he will find little or nothing concerning this subject.

Diagnosis

Carless stated a number of years ago, "A diagnosis is rarely reached apart from operation for the obstructive phenomenon," (of mesenteric thrombosis). Briefly, no

physical signs or symptoms are characteristic of mesenteric thrombosis—all symptoms and signs encountered in acute intestinal obstruction from other causes may be present in the former.

Incidence

Figures vary as to its frequency. Vidgoff in reporting 266 cases of acute intestinal obstruction cites none caused by thrombosis of the mesenteric vessels. McIver recently classified 335 cases of acute intestinal obstruction from the Massachusetts General Hospital and found nine cases or 3 per cent of these were due to mesenteric thrombosis.

Prognosis

McIver in the above quoted report gives the mortality of cases operated upon for mesenteric thrombosis at 100 per cent. The same author found disturbances of the circulation in acute intestinal obstruction from other causes with the following mortality:

INTERFERENCE WITH MESENTERIC CIRCULATION

Classification	Number of Cases	Number showing interference in circulation	Mortality in cases with interference	Mortality in cases without interference
Postoperative, early	37	2 (5%)	100%	43%
Postoperative, late	45	17 (38%)	20%	28%
Bands and adhesions without previous operation	21	8 (38%)	50%	38%
Meckel's diverticulum	2	2 (100%)	0%	0%
Volvulus	13	9 (69%)	55%	25%
Intussusception	17	17 (100%)	53%	0%
Mesenteric Thrombosis	9	9 (100%)	100%	0%
Congenital anomaly	2	0	0%	100%
Gallstones and other foreign bodies	7	0	0%	29%
Strangulated Intestinal hernias	3	2 (67%)	50%	0%
Total	156	66 (42%)	53%	37%

CASE REPORT

Mr. J. B., aged 71, was operated upon under spinal anesthesia on April 4, 1933, for intestinal obstruction due to multiple adhesions which fixed the ileum to the transverse colon. The patient made a good recovery and was sitting up in bed ten days after the operation when at 2:30 a. m. on May 14 he was seized with a sudden severe cramp-like pain near the umbilicus which was only moderately relieved by morphine injections. There was some eructation of gas and nausea with emesis of a small quantity of green fluid. The abdomen was flat between cramps during which a tumor-like bulging with visible and audible peristalsis appeared. An enema produced expulsion of some flatus and a medium-sized formed stool. The patient became pallid and went into shock with a drop in blood pressure from 120/65 to 65/30.

Operation: The patient was operated upon at



Fig. 1. Resected portion of ileum measuring 6 inches.

10:10 a. m. under spinal anesthesia with 75 mg. neocaine. A complete obstruction of the small intestine was discovered 11 inches from the ileum and was due to a gangrenous bowel. The latter was resected and a lateral anastomosis performed. Drainage was established by the introduction of an enterostomy catheter into the stump of the proximal portion of the bowel and 100 c.c. of sterile amniotic fluid (Amfetin) were instilled into the peritoneal cavity and the abdominal wound closed in the usual manner. The patient made an uneventful recovery without the occurrence of peritonitis or a fecal fistula, and has now been active and well for over three months.

Comment

The highlights of this case to which the writer desires to draw attention are: 1. The advanced age of the patient with recovery following two intestinal operations at close intervals and the safety of spinal anesthesia in the state of shock. 2. The fulminant onset of the symptoms and the signs in this case leading the writer to make the preoperative diagnosis of embolism of the small intestine, which was borne out operatively and pathologically. 3. Introduction of an enterostomy drainage catheter into the proximal segment of gut prevents fecal and gaseous accumulations therein and serves as a portal of entry for the introduction of nutrient fluids to prevent dehydration incident to the obstruction. 4. The writer feels that the introduction into the peritoneal cavity of sterile amniotic fluid (Amfetin) serves as a peritoneal immunization against the invasion of bowel microorganisms from the resected area. The striking contrasts in favor of this new technic is very impressive. The

writer's evaluation of this technic is based upon some 200 intra-abdominal surgical procedures, many of which were perforated gastro-intestinal tract cases, with resultant low mortality.

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PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Immunization in Denver

Encouraged by the remarkable success of the Detroit Department of Health in the eradication of diphtheria among children through a city wide immunization campaign, as described here recently by Dr. Henry T. Vaughan, several local agencies, official and non-official, have perfected arrangements to undertake such a movement in Denver. The City Health Department, the Medical Society of the City and County of Denver, the Public Health Council, and the medical division of the Public School System will cooperate to immunize all children, both of preschool and of school age, against diphtheria and smallpox.

Several hundred physicians have arranged to follow a plan prepared by these organizations—a minimum fee to be charged for those who can pay for such protection, but the same service being extended without charge to those unable to do so. These preventive measures will be carried out in the office of the designated physician, the parents of the children reserving always the right to select their own medical attendant. So-called free or public clinics for immunization will therefore be abolished and the vital personal relation, between the family and the doctor, maintained.

In Detroit, the plan has resulted in the protection of 85 per cent of the school children, 50 per cent of the preschool children, and 40 per cent of infants one year of age. In addition it has accomplished an astonishing reduction of preventable illness among these groups with the coincident diminution in the cost of medical care and the saving human life. The conception of child health

as a purchasable commodity has spread rapidly throughout the country and the ease with which such formidable infections as diphtheria and smallpox can be brought under complete control is being demonstrated in many communities.

In this connection the value of coordinated efforts between the city administration and the medical division of the Public School System is shown in the gratifying report, just made by the Commissioner of Health of Denver, for the death rate and sick rate from diphtheria during the year 1933. In that period there were but 81 cases and 6 deaths, giving a case rate per 100,000 of 27 and the mortality rate of 2. Contrasting this with the report for 1924, before immunization was begun, there were 774 cases of diphtheria and 57 deaths. In the years that have followed, immunization has been carried out, not only by the city physicians and the medical staff of the Public School system but by practitioners generally, although the latter have practiced preventive measures on a very limited scale. The incidence of diphtheria and the death rate have steadily declined as immunization work increased so that during 1933 there were but 52 cases treated at Steele Hospital with 5 deaths. With the above campaign operating, not only among the school population, but in the preschool group, it may confidently be expected that diphtheria will be promptly reduced to negligible proportions.

X-ray Mass-Procedure Applicable for the Discovery of Early Tuberculosis in Industrial Groups

It has been long recognized in British, European, and American experience that tuberculosis is especially prevalent among industrial workers. Although in some instances this is due to specific occupational hazards, in most cases it is believed that there are a number of factors operating, such as the strain of employment, increasing opportunity for infection through contact, and low wages with a resultant low standard of living.

Data from a recent survey in New York

City of 20,000 individuals, most of whom would under normal conditions be found in industrial groups, further confirm the fact of a high tuberculosis morbidity among adults and especially among males. For example, in one group of approximately 5,000 white persons surveyed, the yield of definite tuberculosis in the age groups over 20 was from 6 to 10 times as great as for the group below 20 years of age. The New York survey shows strikingly that the most fruitful place to search for the undiscovered cases of tuberculosis in a community is among the adult population.

How to reach the adult, especially the adult with minimal tuberculosis, and the chronic case, is a difficult problem for the community interested in tuberculosis control. The belief is now generally accepted among those working constantly with tuberculosis, that the disease may not only exist but spread for a considerable period of time before symptoms occur which would cause the individual affected to seek medical care. Therefore, adequate case finding among adults cannot depend upon the individual's presenting himself for examination or medical care, but rather should include the examination of groups of apparently healthy individuals. Industrial groups offer a logical point of attack, but relatively little has been accomplished along this line because of the time and expense involved. Also industrial medical service generally is inadequate for and not adapted to preventive work in tuberculosis.—From *American Journal of Public Health*, January, 1934.

Precipitated Toxoid as an Immunizing Agent Against Diphtheria

A single injection of 1 c.c. of precipitated toxoid has rendered 100 per cent of 1917 Schick-positive children Schick-negative. Similarly, 1,400 of 1,414 children, or 99 per cent, were Schick-negative when tested on an average of two to three months after a single injection. The original immunity status was unknown. Observations on 16,289 inoculations revealed eight with abscess formation. As a rule local or general reactions were not severe.—From *American Journal of Public Health*, January, 1934.

BOOK REVIEWS

Mystery, Magic, and Medicine. By Howard W. Haggard, M.D., Associate Professor of Applied Physiology, Yale University. Stiff Morocco. 192 pages, 12 mo. 50 illustrations. New York: Doubleday Doran and Co. 1933.

For the doctor who knows bits of history given by teachers in the medical course for the student and for the educated layman, this is a good outline of medical history. It might well be studied in high schools and colleges. The history of medicine runs farther back than that of any other branch of science except, possibly, astronomy and mathematics, and medicine has the broadest human interest.

Dr. Haggard has already proved his fitness to write a popular book on medical history by his earlier books and his radio talks on "Devils, Drugs, and Doctors." He approaches history from the broad view of physiology and normal development. Starting with the primitive beliefs in magic, common to savages and all primitive peoples, he gives step by step man's gradual advance in understanding of his own body and of the forces that produce disease or make for recovery.

Beginning in Babylonia, 4,000 years ago, the first half of the book brings the history of applied superstition down to the life of Jenner. The second half is more crowded with the advances that have occurred in the last century. The last 47 pages are devoted to the Glossary of Proper Names and Medical Terms which, with the cross references, makes this a small encyclopedia in which is given definite information of the great men of medical history.

The book is dedicated to Edward Robinson Squibb, M.D., whose work in chemistry and pharmacy made ether a safe and practical anesthetic for general use and contributed much to the high standard of many other medicinal preparations. The illustrations are photographic pictures of many of the famous leaders in medicine of the last century, with reproductions of pictures that illustrate the heroes and workers in earlier times.

EDWARD JACKSON.

Good Eyes for Life. By Olive Grace Henderson, Associate, and Hugh Grant Rowell, M.D., Assistant Professor of Health Education, Teachers College, Columbia University. 216 pages. 12 mo. New York and London: Appleton-Century Company. 1933.

Members of the medical profession, whatever the specialty that claims their attention, each have their own eyes to take care of and are likely to be asked about the eyes of their patients' children. Little may be thought of the needs and care of children's eyes. But they have a life time to serve their possessors, and many of the disabilities of sight that are only recognized in old age have begun in the eyes of the boy or girl at school.

The title of this book emphasizes an important thought too often lost sight of. The care of the eyes at school should guard against dangers that will threaten later. Most cases of myopia begin during school life. It is many years before some of these end in detached retina, cataract, or progressive atrophy of the choroid. But most myopes pass many years with defective sight. Myopia may depend on an inherited or congenital ten-

dency; but this tendency is made operative by near work for the eyes, faulty position, and poor lighting.

The chapters on "Eyes Right in School" and "Eye Happiness in the Home" emphasize and make clear the methods of prevention. The same lesson of planning ahead is taught by the chapter on "Tobacco, Alcohol and Diet," which also become sources of danger in later life. This book leads its reader toward preventive medicine—the medicine of the future.

EDWARD JACKSON.

Infections of the Hand. A guide to the surgical treatment of acute and chronic suppurative processes in the fingers, hand and forearm. By Allen B. Kanavel, M.D., Sc. D. Professor of Surgery. Northwestern University Medical School, Chicago, Attending Surgeon, Wesley Memorial and Passavant Memorial Hospitals, Chicago. Sixth Edition, Thoroughly revised. Illustrated with 216 engravings. Philadelphia: Lea and Febiger. 1933. 552 pages, price, \$6.00.

All surgeons who treat infections of the hand have valued Kanavel's book very highly in the past, and I am sure they will receive this new edition with added enthusiasm.

It has been entirely rearranged in text book style, with many new illustrations and much added material. It covers the entire field, from minor infections to severe infections, very thoroughly. The subject is approached from an anatomical as well as a clinical standpoint. The author emphasizes the fact that if one understands the channels through which infections spread, due to the peculiar anatomy of the hand, a lot of unnecessary incisions would be eliminated, and there would be less crippled hands.

The chapters on diagnosis and the general principles of treatment are especially valuable, as are those on the treatment of complications and sequelae, and physiotherapy.

The entire subject is presented in a masterly style, and I believe that all who treat infections of the hand should possess this book and consult it frequently.

JOSEPH E. A. CONNELL.

Nervous Breakdown: Its Cause and Cure. By W. Beran Wolfe, M.D. New York: Farrar & Rinehart. 1933. Price, \$2.50.

In this book, written for the patient himself, a nervous breakdown is described as a "personality knock-out" and a face-saving device in an individual whose idea of "face" is based upon a false sense of values. In cases where this explanation applies, the reading of this volume might prove helpful but not a few patients would quite properly resent some of the implications and might even transfer their resentment to the persons who advised them to read it. Although an optimistic tone is highly desirable in works of this type, the author's peculiarly aggressive optimism may not always have the desired effect.

The book is quite entertaining in spots and presents a good working philosophy which should be particularly useful for the more pampered members of our social order. To the modern realists as opposed to the so-called romanticists, some of the author's remarks will seem a trifle platitudinous.

The reviewer is more convinced than ever that a physician should become thoroughly familiar with the contents of a book before recommending it to his patients.

L. E. DANIELS.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

MEDICAL SOCIETIES

ARKANSAS VALLEY MEDICAL ASSOCIATION Pueblo, March 17, 1934

Members should note that the annual meeting of the Arkansas Valley Medical Association has been postponed one week from the date originally announced in the preliminary program. The meeting will be held in Pueblo at the Vail Hotel on Saturday, March 17.

A luncheon will be given at 12:15, followed by an address on "Medical Economics" by Dr. Claude E. Cooper of Denver.

The doctors' ladies will be entertained by the Woman's Auxiliary of the Pueblo County Medical Society.

The scientific program follows:

9:30 a. m.—"X-Ray and the Painful Shoulder"—Dr. George A. Unfug, Pueblo.

10:15 a. m.—"Gonorrheal Urethritis: Complications and Treatment"—Dr. E. B. Liddle, Colorado Springs.

11:00 a. m.—"The Anemias: Diagnosis and Treatment"—Dr. C. H. Watkins, the Mayo Clinic, Rochester, Minn.

12:15 p. m.—Luncheon.

2:00 p. m.—"Allergic Manifestations Other Than Hay Fever and Asthma"—Dr. Ray M. Balyeat, Oklahoma City, Okla.

3:00 p. m.—"Hay Fever and Asthma; Diagnosis and Treatment"—Dr. T. D. Cunningham, Denver.

3:45 p. m.—"Medical Examinations of School Children, With Special Reference to the Eye Examinations"—Dr. Edgar C. Webb, Canon City.

4:30 p. m.—"An Observation on the Treatment of Acute Diffuse Peritonitis"—Dr. George W. Bancroft, Colorado Springs.

5:00 p. m.—Adjournment.

DR. KON WYATT,
Secretary.

ADAMS COUNTY

Physicians of Adams County met Saturday evening, February 3, in the offices of Drs. Hotchkiss and Peer in Brighton to organize an Adams County Medical Society. Preliminary arrangements had been made through the Executive Office of the State Society.

At the organization meeting, Dr. George P. Lingenfelter of Denver, Councillor of the State Society for the district including Adams County, presided, and Mr. Harvey T. Sethman, Executive Secretary, acted as temporary secretary. All necessary formalities such as adopting a constitution and by-laws in conformity with those of the State Society and the A.M.A. were completed, and officers for the new Society's first year were elected. Dr. J. C. McCann of Brighton was elected as the Society's first president; Dr. Ralph D. Elmore of Eastlake was chosen vice president, and Dr. J. C. Stucki of Brighton, secretary-treasurer. Drs. W. K. Hotchkiss of Brighton, Sarah Lewark of Strasburg, and F. M. Shipman of Au-

rora were elected censors, Dr. J. W. Wells, delegate, and Dr. Walter F. Peer, alternate.

Considerable time was devoted to discussion of the medical and hospital features of the Civil Works Administration, and the possibility of an expansion of medical relief work under Regulations No. 7 of the F.E.R.A. The Society prepared a list of physicians in Adams County eligible and willing to do C.W.A. compensation work, and appointed Dr. Wells a committee of one to represent the Society in dealings with the county relief director.

The Society voted to hold regular meetings quarterly, giving the president or any three members the right to call special meetings when needed.

J. C. STUCKI,
Secretary.

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CLEAR CREEK VALLEY

Physicians who reside in Jefferson, Clear Creek, and Gilpin counties have for many years maintained their medical society membership, if any, in the Medical Society of the City and County of Denver as non-residents. Recent governmental developments made more pointed the need for a local organization of their own, and so a district medical society for these counties was organized at a special meeting held in the Cody Hotel at Golden the night of February 1, 1934.

Dr. G. P. Lingenfelter, Councillor; Dr. John S. Bouslog, Constitutional Secretary and Chairman of the Credentials Committee, and Mr. H. T. Sethman, Executive Secretary, respectively, of the State Medical Society, were guests of the meeting and arranged the organization plans. Dr. Lingenfelter presided and Mr. Sethman acted as secretary pro tem. The physicians present chose the name "Clear Creek Valley Medical Society" for the new organization, as being properly descriptive of the three-county district, and adopted an appropriate constitution and by-laws. The following officers were elected: President, R. G. Howlett, Golden; Vice President, George P. Bailey, Lakewood; Secretary-treasurer, O. R. Sunderland, Edgewater. All of the state officers gave talks on activities of the state organization, particularly in matters of medical economics.

While attendance at the first meeting was small, the Clear Creek Valley Medical Society has a potential membership of eighteen or twenty, and hopes later to be able to report a thorough organization of its three counties.

O. R. SUNDERLAND,
Secretary.

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DELTA COUNTY

Officers for 1934 were elected at the January meeting of the Delta County Medical Society held January 26 at the Delta House in Delta. Dr. W. S. Cleland was chosen president, Dr. H. W. Hazlett, vice president, and Dr. Lee East, Secretary and Treasurer.

Dr. Harry Wear and Dr. T. E. Carmody of Denver were guest speakers at this meeting. Dr. Wear presented a paper on Transurethral Resection of the Prostate and Dr. Carmody gave an interesting talk on the Relation of Dentistry to

Medicine. A number of Mesa County and Montrose County physicians were present to enjoy the excellent papers presented by the Denver doctors.

LEE BAST,
Secretary.

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DENVER COUNTY

The first February meeting of the Medical Society of the City and County of Denver was held February 6 at the Denver Children's Hospital. Prior to the scientific program Dr. B. B. Jaffa outlined the plans which have been completed for a Denver immunization campaign, stressing the immunization of pre-school children. He announced that the materials used for both private and clinical patients will be furnished gratis by the Department of Health.

The Rocky Mountain Pediatric Society presented the scientific program, with Drs. Esserman and Verploeg presiding. Dr. Gengenbach introduced Dr. H. F. Helmholtz, guest speaker from the Department of Pediatrics of the Mayo Clinic. He discussed "Pyelitis in Children," illustrating his talk with slides. Attendance at the meeting totaled 118.

Colorado General Hospital was host to the Society at its second February meeting, February 20, 102 members attending the program. Dr. T. D. Cunningham presented "Two Cases of Probable Cirrhosis of the Liver," Dr. O. S. Philpott presented "Several Cases of Syphilis," Dr. F. E. Rogers presented "A Case of Carcinoma of the Breast," and Dr. W. M. Bane presented "A Case of Cicatricial Ectropion." Dr. Ralph Anderson Thomas was elected to membership at this meeting.

O. S. PHILPOTT,
Secretary.

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EL PASO COUNTY

Dr. Henry Helmholtz, head of the Department of Pediatrics of the Mayo Clinic, was the guest speaker at the meeting of the El Paso County Medical Society held February 7 at the El Paso Club. Dr. Helmholtz gave an interesting talk on Convulsive Seizures in Children.

Dinner preceded the scientific meeting, and fifty members of the Society were present.

CARL S. GYDESEN,
Secretary.

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GARFIELD COUNTY

The Garfield County Medical Society held their regular meeting February 8 at the office of Dr. R. B. Porter in Glenwood Springs. Officers for 1934 were elected at this meeting. Dr. O. F. Clagett of Rifle was elected President and Dr. R. B. Porter, Secretary.

R. B. PORTER,
Secretary.

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LARIMER COUNTY

The Larimer County Medical Society held its regular meeting February 7 at the Northern Hotel in Fort Collins, preceded by a banquet. Dr. G. Heusinkveld of Denver, representing the Public Policy Committee of the State Society, discussed the need of a "basic science law" for Colorado, urging members to study the proposal and bring about a unity of opinion regarding it. He then presented a paper on "The Disorders of Menstruation," which was discussed by several of the members. Mr. Harvey T. Sethman, Executive Secretary of the State Society, discussed "The Relationship of the Physician to the C. W. A. and Federal Relief."

L. D. DICKEY,
Secretary.

NORTHWESTERN COLORADO

Doctors M. H. Rees and Philip Work of Denver were the guest speakers at the regular meeting of the Northwestern Colorado Medical Society held January 25 at Steamboat Springs. Dr. Rees talked on Modern Medical Education and Dr. Work Discussed the Diagnosis and Treatment of Head Injuries from the Neurological Point of View.

Officers for 1934 were elected at this meeting as follows: President, Dr. A. C. Sudan; vice president, Dr. D. E. Newland; secretary and treasurer, Dr. Duane Turner.

DUANE TURNER,
Secretary.

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PROWERS COUNTY

At the meeting of the Prowers County Medical Society held January 2 officers were elected for the year 1934 as follows: Dr. R. J. Rummell, president; Dr. C. L. Housel, vice president; and Dr. S. A. Gale, secretary and treasurer.

S. A. GALE,
Secretary.

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PUEBLO COUNTY

Three meetings of the Pueblo County Medical Society were held in January. On January 2 the annual election meeting was held, and Dr. George M. Myers was chosen president for the current year. On January 16, the Society heard the annual address of the retiring president, Dr. F. J. Peirce. A special meeting was held January 26 to discuss the changed policy of the C. W. A., whereby county societies were charged with the duty of preparing lists of eligible physicians to do compensation work for C. W. A. employees.

At the first February meeting a State Society symposium team composed of Drs. George Bancroft of Colorado Springs and Josephine Dunlop and George A. Unfug of Pueblo presented a symposium on "Some Aspects of the Normal Physiology of the Gastrointestinal Tract."

* * *

WASHINGTON AND YUMA COUNTIES

For several years the three or four physicians in Washington and Yuma Counties who have held medical society membership in state and national organizations through one or another of rather distant county societies have hoped for a local organization of their own. On more than one occasion meetings have been planned only to be cancelled for one or another reason. Late in January of this year the organization meeting was finally held and the Washington and Yuma Counties Medical Society began its career with even greater promise than its sponsors had predicted.

Eleven local physicians attended the organization meeting, all signed an application for a state charter, and all paid their 1934 dues on the spot; perhaps this is a record for other societies to try to equal. One other physician, unable to be present except in spirit but in sympathy with the movement, came into the society a matter of but a few hours later, so we begin with a paid-up membership of an even dozen.

Officers of the Colorado State Medical Society aided in the organization. Dr. N. A. Madler of Greeley, President-elect, Dr. F. W. Lockwood of Fort Morgan, Councillor for our district, Dr. Claude E. Cooper of the State Medical Economics Committee, and Mr. Harvey T. Sethman, Executive Secretary, formed a delegation from the state organization at our first meeting. Fifteen sat down to dinner the evening of Tuesday, January 30, at the Yuma Hotel in Yuma. Afterward, Dr. Lockwood presided and introduced Dr. Madler,

who addressed the group on the work of the Weld County Medical Society in perfecting its organization and in standardizing the Greeley Hospital. Dr. Madler's talk was convincing in its exposition of the value of a well-knit medical organization. Mr. Sethman next talked, explaining the method of organizing a new constituent medical society. With little formality, we then chose the name of the organization, adopted a constitution and set of by-laws, and elected officers. Then Dr. Cooper addressed the society on developments in medical economics, stressing the need of physicians to be well organized if they are to protect their interests economically as well as in scientific matters.

Since a permanent charter cannot be issued to the Society until the House of Delegates meets next September, the Society voted that all who join before September 1, 1934, will be admitted as charter members. The next meeting will be held in April.

Officers of the Washington and Yuma Counties Medical Society are: Clayton J. Bennett, Yuma, President; M. L. Crawford, Akron, Vice President; Lawrence D. Buchanan, Wray, Secretary-Treasurer; Amon P. Flaten, Yuma, Delegate; L. W. Blanchard, Kirk, Alternate-delegate; Harry V. Kitzmiller, Wray, G. B. Bilsborrow, Yuma, and J. H. Larson, Wray, Censors. L. D. BUCHANAN, Secretary.

AMERICAN BOARD OF OPHTHALMOLOGY

If a sufficient number of candidates are interested, the American Board of Ophthalmology will conduct an examination at Butte, Montana, July 16, 1934, at the time of the meeting of the Pacific Coast Oto-Ophthalmological Society. Applicants for the certificate should immediately communicate with the Secretary, Dr. William H. Wilder, 122 South Michigan Avenue, Chicago, Ill.

WOMAN'S AUXILIARY

TO ALL READERS OF COLORADO MEDICINE

Do you not think a donation, large or small, or a bequest to the Physician's Benevolent Fund, would give it a splendid start before the State Meeting?

MRS. G. P. L.

The Woman's Auxiliary to the Denver County Medical Society met at the Denver General Hospital Nurses' Home Monday, February 19, at 2:00 p. m.

There was a good report of the sewing done for the Red Cross. The women have met several Mondays in the Red Cross sewing rooms.

A delightful program of instrumental music was given by Mrs. Louis M. Roth, pianist; Mrs. Samuel N. Goldberg, violinist, and Miss Jane Reyer, cellist.

Mr. Lea Reiber read "Of Thee I Sing."

The attendance was good and the refreshments delicious.

HYGEIA

One of the greatest services physicians can perform is giving instructive information pertaining to health building. If the doctor will stop to think of the excellent opportunity Hygeia affords to correct misinformation in medical and

health subjects and to disseminate authentic instruction, he will give it preference to other magazines for his reception room.

If Hygeia is always there for his patients to read he will find that they are deeply interested in it.

MRS. RALPH DANIELSON,
Hygeia Chairman.

Obituary

The sympathies of all members of the Colorado State Medical Society go out to our State President, Dr. Gerald B. Webb, whose wife passed away Friday evening, February 23, at Glocker Hospital in Colorado Springs. Mrs. Webb died from a streptococcal cellulitis of the neck, following a pin scratch, and had been ill but a short time.

MERCK APPOINTS CHIEF BACTERIOLOGIST

The Merck Institute of Therapeutic Research, Rahway, New Jersey, announces the appointment of Dr. Eugene Maier as Chief Bacteriologist. Dr. Maier is a graduate of the University of Tuebingen, Wuertemberg, Germany, and completed his studies at the University of Erlangen, Germany.

Dr. Maier was associated with the Rockefeller Institute of New York as Research Assistant from 1926 to 1930. Since 1931, up to the time of becoming associated with Merck & Co., Inc., Dr. Maier has been at Bellevue Hospital, New York, in the department of pathology, as bacteriologist for the Tuberculosis Division of Columbia University. He is no relation to Dr. F. Julian Maier of Denver.

"There is an ever increasing tendency for hospitals to become more and more commercial in these times. We talk too much about hospital costs and not enough about the actual care of the patient. The pendulum must swing back. Practically all hospital programs last year, with the exception of that for the Hospital Standardization Conference of the American College of Surgeons, dealt almost 100 per cent with dollars and cents. While I believe it is necessary to discuss hospital economics on every program, I do not believe it should crowd out the other phases of good hospital service."—Dr. Malcolm T. MacEachern, Director of Hospital Activities, American College of Surgeons.

"There is little possibility of argument over the idea that a healthy people is the most valuable asset a state can have."—Franklin D. Roosevelt.

COLORADO STATE MEDICAL SOCIETY

Officers, 1933-1934

President: Gerald B. Webb, Colorado Springs.

President-elect: N. A. Madler, Greeley.

Vice Presidents: First, Frank E. Rogers, Denver; Second, A. G. Taylor, Grand Junction; Third, C. E. Sidwell, Longmont; Fourth, Ward C. Fenton, Rocky Ford.

Constitutional Secretary: John S. Bouslog, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 537 Republic Building, Denver. Telephone, KEystone 0870.

Delegates to American Medical Association: Senior, John W. Ames, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs.

Councillors:	Term Expires
District No. 1 F. W. Lockwood, Fort Morgan	1936
District No. 2 Ella A. Mead, Greeley	1936
District No. 3 George P. Lingenfelter, Denver	1936
District No. 4 C. T. Knuckey, Lamar	1935
District No. 5 George D. Andrews, Walsenburg	1935
District No. 6 C. Rex Fuller, Salida	1935
District No. 7 A. L. Burnett, Durango	1934
District No. 8 Lee Best, Delta	1934
District No. 9 W. W. Crook, Glenwood Springs, Chairman	1934

Standing Committees, 1933-1934

Credentials: John S. Bouslog, Denver, Chairman; Harold T. Low, Pueblo; John A. Sevier, Colorado Springs.

Scientific Work: Kenneth D. A. Allen, Denver, Chairman; Burgett Woodcock, Greeley; G. Burton Gilbert, Colorado Springs.

Arrangements: John B. Hartwell, Colorado Springs, Chairman; William A. Campbell, Jr., Colorado Springs; Carl S. Gydesen, Colorado Springs.

Public Policy: Charles O. Giese, Colorado Springs, Chairman; Walter W. King, Denver, Vice Chairman; H. R. McKeen, Denver; Gerrit Heusinkveld, Denver; Harvey W. Synder, Denver; James J. Waring, Denver; Lanning E. Likes, Lamar; W. W. Harmer, Greeley; Charles H. Platz, Fort Collins; Gerald B. Webb, Colorado Springs, ex-officio; John S. Bouslog, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. S. Bluemel, Denver (1934), Chairman; William H. Crisp, Denver (1935); C. F. Kemper, Denver (1936).

Medical Defense: T. D. Cunningham, Denver (1934), Chairman; Casper F. Hegner, Denver (1935); Frank B. Stephenson, Denver (1936).

Medical Education and Hospitals: J. A. Sevier, Colorado Springs, Chairman; Royal H. Finney, Pueblo; Thad P. Sears, Denver.

Library and Medical Literature: George A. Boyd, Colorado Springs, Chairman; E. D. Downing, Denver; F. W. Kenney, Denver.

Cooperation with Allied Professions: M. O. Shivers, Colorado Springs, Chairman; H. S. Finney, Denver; John R. Evans, Denver.

Medical Economics: Philip Hillkowitz, Denver, Chairman; Claude E. Cooper, Denver; F. Julian Maier, Denver.

Necrology: George M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; C. W. Streamer, Pueblo.

Special Committees, 1933-1934

Postgraduate Clinics: C. E. Harris, Woodmen, Chairman; Maurice H. Rees, Denver; Nolie Mume, Denver; O. M. Gilbert, Boulder; Fred M. Heller, Pueblo.

Military Affairs: George P. Lingenfelter, Denver, Chairman; John W. Ames, Denver; Robert M. Fulwider, Fort Lyon; Louis V. Sams, Denver; W. P. McCrossin, Colorado Springs.

Advisory to the School of Medicine: Frank B. Stephenson, Denver, Chairman; John S. Bouslog, Denver; T. D. Cunningham, Denver; C. E. Sidwell, Longmont; Charles O. Giese, Colorado Springs.

Cancer Education: Lyman W. Mason, Denver (1936), Chairman; Charles T. Ryder, Colorado Springs (1936); John B. Hartwell, Colorado Springs (1936); C. W. Maynard, Pueblo (1935); W. W. Wasson, Denver (1935); H. S. Finney, Denver (1935); William H. Halley, Denver (1934); K. D. A. Allen, Denver (1934); W. W. Haggart, Denver (1934).

Nursing Education: Frank E. Rogers, Denver, Chairman; H. A. Black, Pueblo; C. T. Knuckey, Lamar.

Public Health: E. N. Chapman, Colorado Springs, Chairman; John W. Ames, Denver; Margaret Long, Denver.

Workmen's Compensation Affairs: Peter O. Hanford, Colorado Springs, Chairman; A. S. Cecchini, Denver; J. B. Farley, Pueblo.

Constituent Societies

Meeting Dates; Secretaries

Adams County—Quarterly, date set by president and secretary; secretary, J. C. Stucki, Brighton.

Arapahoe County—Last Monday of each month; secretary, L. S. Anderson, Englewood.

Boulder County—Second Thursday of each month; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, C. Rex Fuller, Salida.

Clear Creek Valley—Second Tuesday of each quarter; secretary, O. R. Sunderland, Edgewater.

Crowley County—Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, O. S. Philpott, Denver.

El Paso County—Second Wednesday of each month; secretary, Carl S. Gydesen, Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs.

Huerfano County—Third Thursday of each month; secretary, J. R. Fowler, Tioga.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, W. L. McBride, Seibert.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, L. D. Dickey, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—Third Tuesday of each month; secretary, F. J. McDonough, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each quarter; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Friday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, Scott A. Gale, Lamar.

Pueblo County—First and Third Tuesday of each month; secretary, J. L. Rosenbloom, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, O. B. Rensch, Durango.

San Luis Valley—Fifteenth of each month; secretary, Sidney Anderson, Alamosa.

Washington and Yuma Counties—First Tuesday of each quarter; secretary, L. D. Buchanan, Wray.

Weld County—First Monday of each month; secretary, J. A. Weaver, Jr., Greeley.

WYOMING SECTION

President, F. L. Beck, Cheyenne

Vice President, J. L. Wicks, Evanston

Secretary, Earl Whedon, Sheridan

President-elect, H. L. Harvey, Casper

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne

J. H. Goodnough, Rock Springs

F. C. Shafer, Douglas

Medical Defense Committee: Earl Whedon, Sheridan R. H. Sanders, Rock Springs E. L. Jewell, Shoshoni

EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Papers Wanted

WE NEED more papers written by Wyoming doctors for the Casper Meeting of the State Medical Society. Dr. Beck, our President, believes that the Wyoming men can and will do this. So it is up to you men not to fail your President. Please send either to him or to the Secretary the title of the paper you will prepare for the meeting July 16 and 17, so that the program can be printed early.

There are others besides our President who feel that Wyoming men are not doing as much as they should for each other. Write a paper telling about some interesting case you have treated. Tell of some of your failures. You will get a lot of good out of preparing such a paper, and the rest of us will gain by your experience. Write it now and send your name in to Dr. Beck at Cheyenne and give the title of your article.



E. W.

Reading the Alphabet

IT SEEMS to be the latest thing to teach a child to read without teaching him the alphabet as you and I were taught when we were children. When a seven or eight-year-old child who has attended one or two years of school comes to the Oculist's office to have his eyes refracted and does not know the names of the letters of the alphabet it certainly does not help the child to a careful examination.

According to this form of modern teaching, when the letter B is seen we suppose the child should get down on all fours and bellow like a bull. When D is pointed to

the child should bark like a dog. When C is next seen the whole office force should put on a Tom Cat fight and when L is reached we expect a series of bleats imitating Mary's little lamb.

It ought to be the pride of every mother to bring a six-year-old child to the oculist knowing the alphabet, even before this child has gone to school. Your mother and mine did it, and if the school teachers don't teach the letters the mothers ought to. The youngster certainly acts the part of a dumb animal when he doesn't know the alphabet, and yet has gone to school for two or three years.

A recent examination of children of persons receiving federal relief developed the fact that only about one child in three could tell how old he was or in what month his birthday occurred. Perhaps there are some things the mothers and fathers could teach their children before they start to school!



E. W.

Our Dues for 1935

WHEN the 1934 dues are all paid the Defense Fund will reach the \$10 000.00 limit set by the amended by-laws.

Your treasurer will suggest the following changes, subject to the consideration of the next House of Delegates:

1. That all members in good standing on December 31, 1934, who paid the \$25.00 assessment levied in 1921 and who file a claim on a form like this—

To the Secretary of the Wyoming State Medical Society:

I paid the 1921 assessment.

I paid the 1925 assessment.

(Strike out the one not paid)

Total.....dollars, for which I claim credit for dues at the rate of five dollars per year. Proof of payment attached.

Signed....., M.D.

with the Secretary within sixty days after the publication of the notice, shall, at the decision of the Secretary and the Board of Councillors, if necessary, receive credit for dues at the rate of \$5.00 per year. The assessment was levied to create funds to carry the smallpox vaccination lawsuit to the Supreme Court. It was not used for the original purpose but was turned over to your Treasurer and formed the nucleus of the Defense Fund.

2. That the members who paid the \$5.00 assessment to the vaccination fund, of which there is a complete record, shall be given additional credit similar to the above.

3. That all members not entitled to the above mentioned credits shall pay \$5.00 per year as dues to the general fund.

4. That all members who joined the Wyoming State Medical Society in 1923 or subsequent years and did not pay the 1923 dues of \$10.00 shall pay \$10.00 a year until they have paid said amount for twelve years.

This plan will make an equal distribution of the expense of the State Medical Society.

Respectfully submitted,

EVALD OLSON,

Treasurer.

Obituary

Albert Benjamin Tonkin

On December 5, 1879, at Tuscarsra, Nevada, Dr. Tonkin was born. He died January 19, 1934, at Denver, Colorado.

He attended high school at Butte, Montana, and graduated from the University of Colorado as a physician. As construction surgeon on the Lander division of the Chicago and Northwestern Railroad he made his headquarters at Casper, later at Shoshoni. When the town of Riverton was started he located there and was one of the leading citizens whose efforts have guided the growth of that city. He served as the first mayor and also as a member of the council.

In 1921 and 1922 Dr. Tonkin was the Secretary to the State Board of Health and the Board's Executive officer. In the Army Dr. Tonkin served about two years at the time of the Philippine trouble, and during the World War was a captain; later he was made Regimental Surgeon of the 115th Cavalry, Wyoming National Guard. He served as State Department Commander of the American Legion in 1922 and 1923. He was, at the time of his death, rehabilitation officer for

the Wyoming Legion and a member of the National Rehabilitation Committee.

Dr. Tonkin married Miss Cora B. Nicholson October 7, 1908, at Boulder, and one son and the devoted wife are mourning the loss of a good father and kind husband. The funeral was a regulation military one at which time full honors were paid to the deceased. To give the names of the members of the different organizations, both military and civil, who honored the doctor by their presence, would fill a page. His friends mourn his passing and remember him for his achievements.

Medical Practice in the New Order

It must be evident to every active minded physician that we are entering upon a new order in the practice of medicine. In every national crisis, be it military or economic, emergency measures affecting the country as a whole are at least temporarily placed under governmental control. There are many indications that in the present emergency the plans instituted may be of more permanent nature. Already a large proportion of the profession is engaged in one form or other of medical service under governmental supervision. Compensation for service is placed on a lower scale and is hardly commensurate with the professional attainment required. The evaluation of the licensed physician may change and the manner of licensure control may likewise be affected.

The period calls for profound judgment and medical statesmanship to maintain our treasured traditions of professional ideals and human service to fit them properly into the new order that is opening up before us.—Federation Bulletin.

No substantial evidence can be produced that even under an idealistic system of medical service can be provided for all the people, at all times, under all conditions. To accept the thesis that medical service can be so provided is to deny the lessons of experience, and to cancel entirely the human factor—that a great many people in close proximity to adequate medical service never avail themselves of the opportunity.—From Presidential Address, C. G. Heyd, M.D., New York State Medical Society.

BUILDING THE DOCTOR'S SURPLUS

Constant supervision has been the one principle for the building of a doctor's surplus which has been stressed most strongly in these articles.

One reason for this is that it has been so sadly neglected by the average investor. Many losses could have been avoided if proper supervision had been given.

Another reason for this need is constantly changing economic conditions. American wealth is continually changing; for example, in 1860 48.1 per cent of our wealth was in agriculture, while in 1932 only 8.2 per cent was represented by this industry. In 1860 transportation accounted for 3.7 per cent of our total wealth. It rose in 1904 to 10.7 per cent and in 1932 accounted for but 7.8 per cent; or in other words, had returned in 1932 to the same relative position it occupied in 1880. Distribution, which includes stores, shops, eating places, chain outlets, garages, etc., represented only 3 per cent of our wealth in 1860; but now amounts to 10.5 per cent.

American wealth is changing in still another form: in 1929 it had reached a peak after steadily increasing for many years. Since then there has been a continual shrinkage. The new forms wealth assumes should be of utmost concern to the investor. In order to avoid losses and to hold only the most profitable investments his investment account must have constant supervision. Otherwise he will hold investments in corporations which, having passed their peak, are in a period of retrogression.

Today is a time of change. Tomorrow promises even greater changes. Today we have come a long way up from the bottom, but in the security field new favorites are already replacing the favorites of yesterday. Tomorrow will bring still new leaders, which today are unknown or highly speculative.

American wealth is changing; greater emphasis on constant supervision is needed now more than ever before.

WOODFORD MATLOCK, JR.

**I
M
F**

FUTURE PROFITS

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Denver Hospital Council

THE Denver hospitals on February twenty-first organized the Denver Hospital Council. This is one of the most important advancements in Denver hospital administration which has taken place since the organization, thirty years ago, of the Colorado Hospital Association. The object of this group is to coordinate in solving the economic and scientific problems of the hospitals of the community. It is hoped that a better understanding among the hospitals will be manifested through this organization, and that each institution may receive the aid of the others in the solving of its problems.



Staff Memberships

SOME of the hospitals of the State are now requiring that physicians must be members of their County Medical Societies before they are eligible for membership on any of their respective staff classifications. This is a step in the right direction, and should be adopted by all recognized, ethical hospitals. If a physician is not eligible or is not sufficiently interested to join his County Medical Society, which in turn gives him membership in state and national organizations, he should not be recognized by a hospital approved by the American Medical Association or approved by the American College of Surgeons. Membership in his association is the best assurance to a hospital of an unknown physician's ability and integrity. It is hoped that when each approved and recognized hospital of Colorado makes up its staff lists next year it will inquire as to whether or not its physicians are members of the County and State Societies before granting them the privileges of the hospital.

DOES COLORADO NEED LOCAL HOSPITAL COUNCILS?*

WILLIAM S. McNARY
DENVER

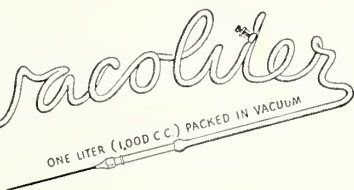
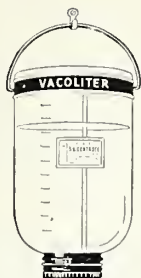
Old methods change giving place to new.

Never has this been more clearly demonstrated than during the present period of transition to what we all hope will be a new and better and more stable economic life. As a speaker at the recent American Hospital Association meeting in Milwaukee said, "Civilization is a tree which, as it grows, continually produces rot and dead wood—the Radical says 'cut it down;' the conservative says 'don't touch it;' the Liberal says 'let us prune, so we lose neither the old trunk nor the new branches.'" The Radical might say about hospitals, "Close them up or put a Dictator over them;" the Conservative often says, "Leave them alone and each one will work out its own salvation." I believe a Liberal would say, "Let them get together and help each other and thereby increase the service each can give to the community."

Hospital councils are no longer in the experimental stage. Councils in certain communities have made wonderful steps in solving difficulties with which all hospitals have contended for years. Local hospital councils are being formed in the larger centers of population all over the country. I have received from Dr. S. S. Goldwater, Chairman of the American Hospital Association Council on Community Relations and Administrative Practice, a list of over seventy-five hospital councils in the United States which

*Read before the Annual Meeting of the Colorado Hospital Association, November 16, 1933.

Readers will note that since the original presentation of this article, the Denver Hospitals have organized the Denver Hospital Council. This Council was formed on Feb. 21, 1934.



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are either in actual operation or in process of formation.

Now all these busy hospital executives, both public and private, are not spending so much time and in many cases so much money simply to start another organization in order that they may take turns at being President and Secretary and Trustee and get their names in the papers. They are forming these councils because they feel that the hospitals which they represent will benefit thereby in a hundred different ways. Many problems with which we struggle every day are purely local in character and could be attacked very readily by a local organization of Hospital Superintendents and Department Heads. Misunderstandings between individuals and hospitals are frequent and many such misunderstandings might be cleared up or their underlying causes done away with by frequent and regular meetings of the hospital heads in any given city.

Let me name some of the more important problems the solution of which might be undertaken by local hospital councils in this State: Hospital planning for the community; collections and the handling of professional deadbeats; group insurance; public relations; exchange of information on fire insurance rates and ways to reduce them; legislation affecting hospitals including the actual formation of some plan for State aid such as exists in Pennsylvania and Canada; the formation of a uniform program for schools of nursing; an honest exchange of information on wage schedules, vacation and sick leave allowances and possibly the formation of a definite uniform schedule for these; more uniform rules and regulations for staffs and employees; combined or cooperative purchasing; standardization of laboratory fees and chart forms; and last, but far from least, is the need for local hospital organizations to cooperate with and furnish information to the recently formed Council on Community Relations and Administrative Practice.

Many other subjects for the attention of a Council will doubtless occur to many of you. Of some of the ones incorporated above you may perhaps not approve. There are many opinions in the value of coopera-

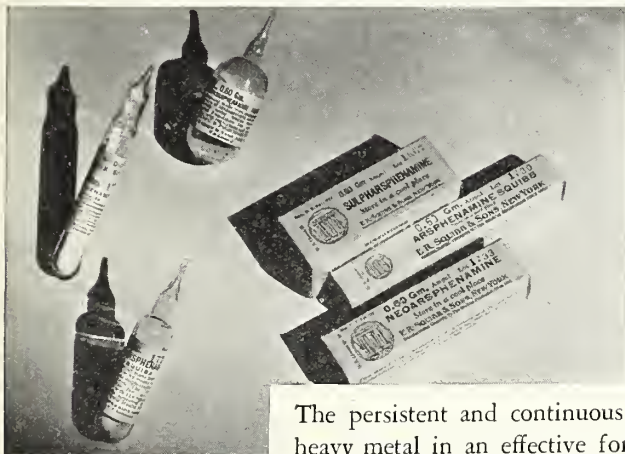
tive purchasing. Some feel that it could never be successful here in Denver; some hospitals oppose any sort of publicity program, although many believe it of inestimable value to hospitals as a group while opposed to the retention of paid publicity agents for individual institutions. At any rate, discussion is certainly in order regarding the establishment of some recognized source of authentic information on hospital programs when such information is desired by newspapers or when hospitals as a group wish to present an idea to the public.

You all know of the wonderful work of The Cleveland Hospital Council. Let me tell you what the Memphis Hospitals have done through their local association, according to their Secretary, Mr. B. P. Moffat. The Memphis Hospital Association meets monthly at different hospitals, which in itself has developed a cordial spirit not formerly evidenced. This group has managed to work out and maintain a uniform schedule of laboratory fees. This schedule of which, by the way, Mr. Moffat sent me a copy which I shall be glad to show anyone interested, is distributed by the Memphis doctors so that a patient may be properly informed by any doctor regarding such fees before entering any hospital in the city. I believe Denver doctors for example would cordially welcome a scheme of this kind. The Memphis Hospital Association has also standardized the chart forms in all member hospitals which has been another great aid to the doctors. This association has solved many problems in connection with the Press, the Medical Society and similar organizations. These are actual practical doings of an active organization such as I am advocating for the cities of Colorado.

One of the first objections to the formation of a local Hospital Council is usually that of the difficulty of financing such an organization. It is my belief that this objection should not interfere with the undertaking because financing is unnecessary at first. As confidence is gained and the work and accomplishments of the Council are proved, financing for a more extensive program should be comparatively easy.

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These Councils should be organized on as simple a basis as possible; there will be no difficulty about expanding as the need for such expansion presents itself to the individual members. Meetings should be held often on regular set dates. The Council should take up one thing at a time and try earnestly to carry through to a logical conclusion such plans as are made. Frequent meetings promote interest in the Council and friendly feeling between hospitals.

My recommendations for the formation of local hospital councils briefly expressed would be to organize simply, meet often, be honest with your fellow members, and keep interested in at least one project of general local importance all the time.

The following is a simple plan of organization:

MEMBERSHIP: May be limited to Hospital Administrators or administrators and department heads or administrators and one or two others from each hospital to be selected by the Hospital Administrator.

VOTING: To be limited to one vote for each hospital.

MEETINGS: To be held at least monthly and preferably twice a month, except possibly during July and August.

OFFICERS: A president, a vice president, a secretary and a treasurer, to be elected yearly and to constitute the Board of Control or Trustees of the Council.

COMMITTEES AND OBJECTIVES: To be decided on from time to time at the regular meetings of the Council.

In general I believe private hospitals will be more interested in such an organization than public hospitals for self-evident reasons, but many activities of the local council should be interesting and profitable to all hospitals and sanatoria.

Now we have had papers and discussion on this subject at several of our recent meetings, but we have had no action. It is my desire to crystallize the opinion of the Association at this meeting in an effort to determine whether or not the other members of the Colorado Hospital Association both here in Denver and elsewhere throughout the State really believe in the principle of local hospital councils. I want to know what the Superintendents and Business Managers of other institutions really think about this subject. No one can organize a

hospital council alone. I should be foolish to attempt it here in Denver, first because it is not my idea of a one man job whoever or whatever that man may be and second, because I feel it is not my place as an employee of a State institution to attempt something which needs the support and initiative of the private hospitals behind it much more than that of the public institutions.

After all, what difference does it make whether your hospital is Protestant or Catholic, Jewish or Non-sectarian, or whether it is owned by the State, the city, the Church, or the individual? All hospitals must buy potatoes and beans; all must hire and discharge employees; all have been faced to some degree at least with the necessity of cutting expenses within and inspiring good will without. Granting that these things are true, why shouldn't we all pull together for the common good instead of working at cross-purposes and often accomplishing very little for ourselves and nothing for the group as a whole?

If the idea does not meet with approval it should be dropped. On the other hand, if through local organization we can meet our local problems better than they have been met in the past, then let us organize.

Some popular fallacies about home treatment of the eyes are described by Dr. William L. Benedict in the winter issue of *The Sight-Saving Review*, quarterly journal of the National Society for the Prevention of Blindness. Dr. Benedict, who is head of the Section on Ophthalmology of the Mayo Clinic at Rochester, Minn., says:

"There is very little understanding on the part of the public as a whole that a most potent antiseptic agent is supplied to the eye by natural means: that is, by the tears. Laboratory experiments have shown that for most disease-producing organisms, normal tears are hundreds of times more effective in protecting the eye than solutions of drugs in such strength as can be borne. The tears are supplied in amounts that are properly regulated, and counteract the effect of most air-borne bacteria.

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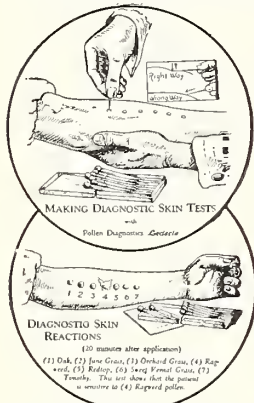
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Glycerolated Pollen Antigens in stable and standardized solutions provide the general practitioner with a means for the scientific treatment of his Hay Fever patients. Each year has added evidence to the value of these solutions in the prevention and relief from symptoms of Hay Fever and each year an increasing number of physicians have familiarized themselves with the Hay Fever problem and are relieving their patients' attacks.

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that many eye lotions are put up in a solution of boric acid, the better informed immediately turn to this solution as the one safe substance that can be used for any disorder of the eye. Hence, we find that many people are using an eye cup, giving the eye a daily bath in boric acid solution, in the hope that their disorders will soon pass away and the necessity for visiting a physician may be obviated.

"The healing properties of boric acid are infinitesimal. It is used chiefly by physicians as a vehicle to carry small dilutions of more potent drugs; and because it retards the growth of fungi or of contaminating bacteria, it forms a convenient way to dispense medicines for the eye. There is not sufficient reason for the regular use of eye baths, as there may be for cleansing of the teeth or gargling the throat. The practice of giving eye baths with any solution when eyelids are not diseased, except on the advice of an oculist, should be discouraged."

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"No one who is at all familiar with the situation can question the seriousness of the economic problems confronting both the profession of medicine and the hospital. On the other hand, I cannot take the view that economics is the central problem in medical service today. I am inclined to believe that no problem in medicine can ever become central except the problem of medical service. * * *

"If the physician is not a master voice in medical service, sooner or later medical service ceases to be medicine whatever else it may become. No amount of external pressure can make medicine anything but medicine. You may try to convert medicine into sociology and economics and politics but then you are simply using medicine as a mask behind which there will probably be leering some form of self-interest, of group aggrandizement or financial profit to someone, not the doctor or the hospital."—Rev. Alphonse W. Schwitalla, S. J., President, Catholic Hospital Association of the United States and Canada.

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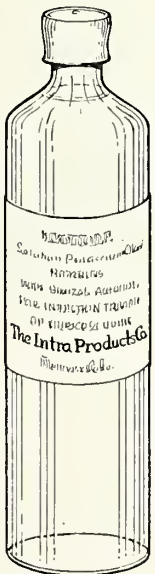
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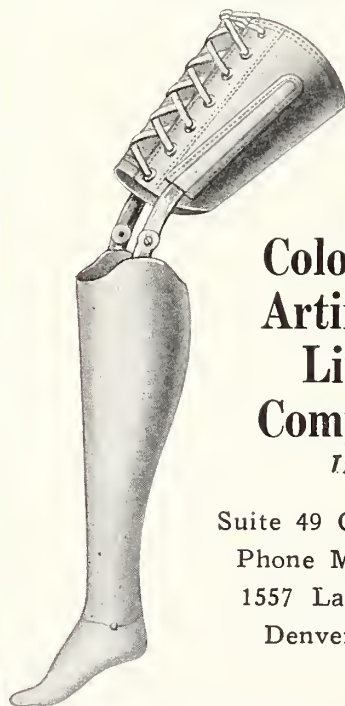
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Radiology Congress Sees New X-Ray Tool at Chicago

The smallest x-ray set built in this country was demonstrated at the meeting of the American Congress of Radiology at Chicago late in September. The set is the newest development of the General Electric X-Ray Corporation, and was presented by the corporation's newly elected president, John H. Clough. Radiologists from all over this country and abroad attended the three-day meeting.

The small unit is rated at 58,000 volts and 10 milliamperes, and stands in marked contrast to the mammoth 800,000-volt x-ray tube recently installed at Mercy Hospital in Chicago. The new device operates from an ordinary light socket, is shock-proof, and may be operated in perfect safety by any layman—a combination of virtues long sought by the x-ray industry.

The small set is capable of making x-ray photographs of the entire human body, or it may be carried around and used for making fluoroscopic examinations in industrial plants. It can be used in custom houses to examine clothing, baggage or packages, at race tracks and stables for inspection of horses' ankles, in cat and dog hospitals, or for such work as fluoroscopic examination of airplane parts. It was designed by J. B. Wantz, one of the founders of the G. E. X-Ray Corporation.

"This small x-ray set will replace much more cumbersome equipment now in use," Mr. Clough declared. "Because the average man can use it with perfect safety, it will probably find use even in such places as the post office for the examination of suspicious packages."—General Electric News.

AMERICAN PUBLIC HEALTH ASSOCIATION

The American Public Health Association announces that its Sixty-third Annual Meeting will be held in Pasadena, California, September 3-6, 1934. The Western Branch of the American Public Health Association, with a membership of more than 1,200 from eleven western states, will hold its Fifth Annual Meeting at the same time.

Dr. J. D. Dunshee, Health Officer at Pasadena, has been appointed Chairman of the Local Committee on Arrangements. He will be assisted by Dr. John L. Pomeroy, President, and Dr. W. P. Shepard, Secretary of the Western Branch, and other prominent public health authorities on the west coast.

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IMMATERIA MEDICA

"Did you give our daughter that copy of 'What Every Young Girl Should Know'?" asked Dad.

"Yes," replied Mother, despondently, "and she's written a letter to the author suggesting a couple of dozen corrections and the addition of two new chapters."

* * *

"What would happen if an immovable body was struck by an irresistible force?"

"The lawyers would flock to see if there wouldn't be a damage suit."

* * *

"Did you see anything in the jewelry store you liked?"

"Yes, but you won't get it for me."

"Honest I will. What is it?"

"The cute salesman."

* * *

A little school girl offered the following composition on anatomy:

"Anatomy is the human body. It is divided into three separate parts, the haid, the chest, and the stummick. The haid holds the skull and the brains, if there is any, the chest holds the liver, and the stummick holds the vowels, which are a, e, i, o, and u, and sometimes w and y."

* * *

Mrs. MacPherson (just at meal time): "Sandy, we have guests at the door."

Sandy: "Grab a toothpick, quick."

* * *

Servant (to lion tamer in cage)—"Your tailor is here with his bill."

Lion tamer—"Tell him to come in."

* * *

"I'm goin' to keep on sending my boy Josh to college," said Farmer Corn tassle.

"You think he has exceptional intelligence?"

"No, confidentially, I don't think he has a great deal of sense. I'm goin' to put him in the way of learnin' a lot of long words so's maybe he can fool people."

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EDITORIAL NOTES AND COMMENT

A Real Immunization Campaign

ONE of the most substantial contributions to public health and to the medical profession is now afoot in the City and County of Denver. The activity promises to place that community among the most completely immunized against diphtheria and smallpox and therefore among the first wherein these diseases will in the future be practically unknown.

Our profession has resented school immunization of children from economically responsible families. In response to these objections, the Health Department and School authorities indicated their willingness to cooperate. They rightfully held that the activity must carry on by one means or another and suggested that physicians agree upon lower prices for immunization and procure the cooperation of the entire Medical Society. This was done in the fall of last year; the fees were set at \$5.00 and \$2.00 for diphtheria and smallpox immunization, respectively, the doctor furnishing the materials. No tangible influence resulted. The Rocky Mountain Pediatric Society resolved to further the activity in a more material way. Its members agreed to immunize school children sent to them for whatever they could pay. They also reapproved the above rates, approved vaccination of all newborn infants at the Denver General and of infants at the Infant Welfare Stations conducted by the Visiting Nurse Association, and sanctioned free immunization by school physicians of all children in the poor-

er districts. The pediatricians also requested that an Immunization Committee be appointed from members of the Denver County Medical Society. President C. E. Cooper responded with the following designations: Jaffa, Chairman; Beaghtler, Forbes, Metz, Schoonover, Stahl. This group appointed two subcommittees to standardize procedures and to handle the necessary publicity.

The Demonstration Committee under Dr. Stahl agreed to contact every physician (member or non-member) in the city. This was done locally by card and personal call and in outlying districts by Visiting Nurses. All were invited to attend demonstrations of standard technic at the Childrens Hospital. Here the doctors were registered and certified—each agreeing to charge maximum fees of \$3.00 for diphtheria and \$2.00 for smallpox immunization of those who can pay, indigents free, and to report all to the Health Department. Doctors thus certified receive cards from that department entitling them to vaccine from a central distribution center. This material is paid for by the Health Department. No doctor is thus favored unless he has attended a demonstration of the standard technic. To date upwards of 200 Denver physicians are certified. Demonstrations are being given at County Society meetings at this time due to poor attendance at the hospital. This facilitates convenience.

The Publicity Committee, under Dr. Vera Jones, is placing the campaign before the people through theaters, newspapers, radio,

and parent-teacher organizations. Also twenty nurses under the C. W. A. are working from the offices of the Visiting Nurse Association in a house-to-house campaign. They endeavor to create the proper attitude toward immunization through this personal discussion and with the aid of literature drafted by Dr. Stahl. This phase of the work is especially valuable in promoting immunization of preschool children. It is estimated that immunization of one preschool child is as valuable as immunization of two school children in the ultimate prevention of these diseases.

The importance of this campaign is inestimable. The work entailed by our health and school officials, the committees and committeemen is tremendous. The original Committee has met once a week since its inception; work of the Subcommittees has been briefly mentioned above. This is a campaign to place immunization procedure into the hands of the private physician where it belongs and to protect our people against two dread diseases. A valuable by-product of the work is the incidental public health education and confidence in scientific medicine.

The greatest problem, strange enough, is not with the public. It is with the doctors! Why should we have to fight to procure their attendance at demonstrations, standardize fees as well as technic, and actively encourage the immunization of their patients? Possibly they underestimate its importance, say nothing of lack appreciation for the efforts of those colleagues who are giving generously of time and talent to place the practice of medicine into proper hands and to win and retain public confidence. Charity cases remain where they belong—the General Hospital, Visiting Nurse Association, lower school districts. Pay and part-pay cases go where they belong—to the private doctor—if the campaign succeeds! If the doctors fail, all is lost.

This activity should be carried on in every community in the State. The above pattern is working and may be applied wherever doctors are willing to get behind it. Let Colorado be one of the best immunized states in the Union!

A Great Health Meeting

A FAMOUS writer of hymns, when criticized for using tunes taken from operas and popular songs, replied he would not leave all the good music for the devil. The medical profession should not leave health to the cultists and the proprietors of "health foods" establishments. The American College of Surgeons, in spite of criticisms from those who remain outside of it, has helped to raise the standards of hospital management and check commercialism in the seeking of surgical practice. It has now demonstrated that the mass of people can be interested in higher standards of health.

In the Sectional Meeting of the College for Colorado, Utah, Wyoming and Idaho, held at Salt Lake City, February 27, the health meeting held in the evening of the first day broke all records for such meetings in America. In the original meeting ten thousand people filled the great Tabernacle; an overflow meeting of fifteen to eighteen hundred heard the program in an adjoining hall. The same speakers, nine in number, gave their addresses first in one meeting and then in the other. The audiences listened with close attention for about three hours.

The general topic of Progress in Medical Science was followed up by specific subjects, such as Cancer, a Curable Disease; Appendicitis; The Ache in Your Back; Relation of Nervousness to Disease; and Doctors, Patients, and Hospitals. These held the interest and attention of thousands who had come with only a vague impression of the many factors that cooperate to restore or preserve health. Such meetings are of educational value—still unappreciated by most members of our profession. E. J.



The Round-up

THURSDAY, February 22, 1934, was the day of days. The majority of good Esclapian disciples in Denver County remember it as something other than just another Washington's birthday or the end of a Chinese New Year. Those for whom this day

has not assumed a new significance simply were not there. The former sanctuary of the Colorado State Medical Society office at 658 Metropolitan Building was proudly garbed as an oasis wherein all who wearily entered departed refreshed. It no longer was the domicile of executive forces and literary prowess, all dry as the dates of history. Such reanimation by the bewildered hosts may have implicated deep foresight. No degree of inebriation would find a straggler envired in new and unfriendly surroundings. Too, the paths leading back to the respective professional appointments were at least partly beaten. Casualties were minimal. There were no deaths, only a few slightly injured (chiefly crushed pedal extremities occurring at or near the pretty bubbling spring), and a tally the following day accounted for all the missing. Tactful secretaries earned their pay, that day, devising stories about emergencies, confinements, and unexpected trips out of town. Bless their hearts.

The list of hosts comprised a venerable group: Hall, Childs, Black, Amessee, Levy, Halley, C. E. Cooper, Markley. Gentlemen, your colleagues thank you! Such an event makes our professional associations a joy. It contributes substantially to the feeling of good fellowship in Denver and Colorado which is the envy of physicians the country over. We're not such a bad bunch under any circumstances—and especially when inhibitions are let down during a round of real fellowship.

That's the spirit with which we'll cling together in organized medicine, practicing it as we always have—for the good in it to our fellow men, satisfaction to ourselves, and helpfulness to each other.

Fee-Splitting Law

THE statutes of Colorado have for many years carried a law which makes fee-splitting, in any guise whatsoever, punishable by law. The majority of doctors are unfamiliar with this fact, let alone the details of that enactment, according to members of the Board of Medical Examiners.

In order that this important law may be universally familiar, this issue of the Journal carries that law and an authoritative interpretation. Please give it your special attention under Secretarial Notes and Comment.



The Sacro-iliac Joint— A Region of Poor Diagnosis

IN a recent publication we noticed an interesting viewpoint on sacro-iliac disorders. In answer to the question, "When is sacro-iliac disease not sacro-iliac disease," a well-known orthopedist replied, "Nine times out of ten." Actual disease of the joint manifests itself by pain, weakness, limp, and change in attitude. It may easily be confused with sciatica or disease of the hip or spine.

Similar symptoms may result from falls on the buttock or pelvis or by strains. Actual injury and displacement at the articulation are, however, thought by many authors to be far less common than generally supposed. Weakness of the joint is often attributed to malposition of the sacrum such as may be caused by conditions which rotate it to a more than usual perpendicular attitude—as pregnancy or long-continued bed rest. Slight injuries may cause local discomfort which is induced by forward flexion of the body, or flexion of the extended limb upon the trunk.

Gocher, of San Francisco, has recently commented upon the increasing frequency of the diagnosis of "sacro-iliac slip." The dense strong posterior ligaments of this joint virtually preclude its slipping except following the most violent traumatism. Dr. Gocher made a thorough study of a series of sacro-iliac conditions which had formerly received medical advice. He found the diagnosis incorrect in 88 per cent of the cases. No actual "slip" was found, even in cases with sacral fractures which involved one or both joints and cases with advanced arthritis and synovitis. The nearest to a "slip" of the joint was noted in a case wherein a large rock had struck the area over the joint, causing a fracture.

It seems that "sacro-iliac slip" is a medical uncertainty and disorders of this articu-

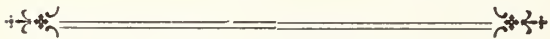
lation diagnosed with unwarranted frequency. Its name is becoming more common in the lay vocabulary, particularly among the class enjoying poor health. The field is one of those readily exploited by the cutists who treat by manipulation. The medical profession will more often relieve and retain the genuine sufferers by more discriminating diagnosis. Otherwise they will wander back to the irregulars. Their faith can be won and retained by more thoughtful differential diagnosis and proper treatment. Physical therapy is herein recognized by the American Medical and the American Hospital Associations.



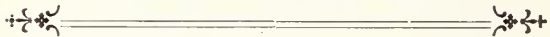
Lethargy

THE medical world rightfully designates the past fifty years as the Golden Age of Medicine. The next fifty years holds promise of even greater progress, particularly in preventive measures. The profession's greatest work has been toward the eradication of the very means of its existence—economically speaking. During that time more impositions and extraneous forces have preyed upon this altruism, attempting to direct its powers for selfish gain.

When physicians are indifferent to campaigns which educate the people and direct confidence and dollars into scientific medical channels, when many doctors ignore clinical instruction in the methods which research has perfected, and when they disregard the activities of the county and state societies—things begin to look good for the parasites and the exploiters of medical science.



CORRESPONDENCE



To the Editor:

The Midwinter Postgraduate Clinic sponsored by the Colorado State Medical Society was a success. A great success! For the most part, the program was put on by acknowledged leaders in their respective specialties. This is as it should be.

It must be said of the large majority of our essayists that their's was a poor type of courtesy showed to their compeers, by

being conspicuous for their absence at all sessions except the one at which they themselves were "it." They hurriedly rushed in (as is entirely befitting the "busy doctor"), found a safe parking place for their beaver, disgorged, thinking there was nothing they could learn from any of the other speakers on the program, hurriedly rushed away to prepare for their next perennial appearance.

As for attending the County Society meetings, they condescend to honor it with their presence once a year, when they choose to elect themselves, or somebody else, as delegates to some concourse of other big boys. In fact, they turn out in such numbers at these annual roundups, that any place of assemblage other than the assembly room of the Morey Junior High would either be too small or too unscholastic to hold the throng. A friend of the writer suggested to one of these "birds" that their occasional presence at the regular meetings of the County Society would be appreciated. But a lofty gaze, which was the only reply, was so frigid he was compelled to take the hot water bottle to bed for a week after.

Over at the "County" (we old fellows don't know where the Denver General is), we enjoyed one of the best programs of the entire Midwinter Postgraduate Clinic. The cancer clinic was one long to be remembered. Between fifteen and twenty cases were exhibited in corpus. In addition to being a learned and highly scientific man, our essayist was a most patriotic one. Knowing that the taxpayers were already overburdened, and that soap and water has long been an unnecessary extravagance, the use of which is plunging our nation deeper and deeper into debt, this needless luxury was dispensed with. About half the cases were oral cancers complicated with syphilis. Each oral cavity must be explored by the fingers of the operator. A visitor suggested that in the future, the oral and hemorrhoidal clinics be conducted simultaneously and the patients be examined alternately. One thing must be said to the honor of our essayist, he was a perfect gentleman and host with it all. He wiped his nose with the same fingers he used in making the examinations.

T. M. H.

OBSTETRIC MORTALITY*

With Resumé of Deaths in Colorado, 1928 to 1933

E. D. BURKHARD, M.D.

PUEBLO

If I need apologize for bringing you such a dry subject as statistics, let me quote ex-President Hoover: "I was taught young the potency of truth—that it would prevail. The raw material of truth is facts. Statistics are not mental exercises; they are the first step to right decisions, to enlightened action, to progress itself."¹ The study of these statistics can have but one legitimate purpose: to recognize and point out where and how any improvement can be made in the mortality of child-bearing.

Two years ago I presented this subject to the Society because of a strong conviction that only too many articles and published statistics concerning it were not only fallacious but a direct libel on the medical profession in the United States as well as in Colorado, and that the unwarranted criticism of American obstetric practice continues to be a perennial indoor sport. The information laboriously gathered for that paper, together with accumulated data, comments and observations, prompts me to come again with figures covering five consecutive years to provide a broader and better base for the study. I still have neither hobby nor theory to present as a solution, but am content to submit some real facts, the symptoms and physical findings if you please, and indulge in the hope that subsequent symposia, conferences, conventions or what-not will develop, perfect and administer a remedy. *The persistent reiteration of "the high mortality rate" and publication of fallacious statistics by propagandists, some physicians and even some qualified obstetricians, can only bring dire results to the profession generally.* Not only do we suffer lessened incomes, but we must recognize a decrease in prestige and respect.

Tables and texts are even published in the Mortality Statistics by the Bureau of the Census², wherein national comparisons

are made which are as incomparable as money values without knowing the rates of exchange. Even our own Colorado Medicine is a contributor. Witness this from a book review only last year: "The high maternity mortality in this country and the fact that until comparatively recent years the only obstetrics taught in medical schools was the diagnosis of pregnancy and maternal care at delivery, gave the keynote for all investigation and study."³ More adequate obstetric education was deemed necessary not only for the undergraduate, but for post-graduate and graduate as well."

Again, observe this from "Obstetric Education," the report of the White House Conference Committee on Prenatal and Maternal care: "The high mortality rate in this country is a reflection on the training and education of the personnel responsible for furnishing maternal care. But this does not imply any criticism of those who carry out obstetric practice . . ." ". . . Most workers in the field of maternity care see relatively few maternity cases, so that a maternal death occurring once in approximately 140 cases, according to the present maternal mortality rate in the United States, does not make much impression on the individual physician. If, however, one considered the fact that there are approximately 15,000 maternal deaths annually in this country, the figures become impressive, especially when we realize that our latest rate (1929) is 7 per one thousand living births, as compared with about 3, which is the best in other countries for the same year. The most tragic part of this situation is that approximately three-fourths of these maternal deaths occur from causes which are controllable, such as infection, toxemia and hemorrhage."⁴ Here again is the acceptance of three per 1,000 "in other countries" without qualification or explanation.

The editors of Gynecology-Obstetrics Year-book for 1923, page 427, commenting on an article on maternal mortality by W.

*Read before the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs, September 14, 1933.

Hendry, Toronto, has this to say, "Poor obstetrics is the cause of a large part of the unnecessary mortality. There is a small unavertable peril in childbirth and the cleverest and most watchful accoucheur may not always be able to avert a fatal ending. That we have a large avoidable mortality has a fundamental cause, one that reflects itself in the public's attitude to the accoucheur, in the legislature's neglect of the medical profession, and in the physician's own conduct of confinements. The public, the legislature, the physicians are taught to believe that pregnancy and parturition are normal, natural functions. It is hard to see why a normal function needs supervision and expert attention. None of the woman's other functions require these. Let the public, the legislators, and all physicians be brought to realize that childbearing, while not a disease, but normal in the intention of nature, is in reality pathogenic and therefore of high pathologic dignity. All will then appreciate the necessity for prenatal care, and the high value of expert attendance in labor. The women will then follow prenatal hygiene and employ obstetric specialization for their confinements; and they will not begrudge the accoucheur his reasonable and hard-earned fee."

Then, without further ado, let us discuss the mechanics of statistics. Statistics of life and death are ratios to existing population, i. e., per 1,000, per 100,000 or per 1,000,000 individuals. Puerperal deaths are commonly rated per 1,000 *live births* and thereby lose their perspective with other statistical rates. Now, the ideal, but impractical, is the proportion of births and deaths to total pregnancies. Of course, this is absolutely impossible. The next best ratio then must be to the number of women of procreative age. This makes certain to include even the "impossibles" and the "accidents." Clearly this number comprises not only all the live births, but the stillbirths, the abortions and the miscarriages, and since many abortions and miscarriages are not reported or may be camouflaged for various reasons, the one factor in our ratio cannot be accurate. The error due to this fallacy may be small; nevertheless, it serves to magnify the unfavor-

able proportion. So, for practical purposes, these deaths can best be related to the total number of women of procreative age, i. e., 15 to 45. This is also better because it eliminates still another fallacy due to the multiple births.

Because the bulk of statistics are based on per 1,000 live births, those figures will be used here. But I shall try to correlate them to the rational method. There are two very valid objections to the live birth ratio: first, what constitutes a "live birth?" Plainly, a breathing living child—but how many or how few breaths will be the limit? In this country and under some circumstances one good gasp will alleviate the distress of anxious relatives. It will also answer the letter of the law for registration purposes. In some foreign countries, the child is not legally (or morally?) living until it has been baptized. Now what does that signify? Just this: In this country in 1928, of all live births (recorded) three-fourths of 1 per cent died in the first year; one-sixth of 1 per cent died in the first 24 hours and one-fourth of 1 per cent in the first 72 hours. Very small fractions, I know, but since the propagandists prefer to quote abstract figures, let us see what that means. Again quoting 1928:

Live births were 2,233,149.

Deaths in the first year, 153,492.

Deaths in first 24 hours, 34,234.

Deaths in first 72 hours, 50,933, which is nearly 33 1/3 per cent of infant deaths of the first year. I think these figures have the more significance in view of the furor about 15,000 deaths of which a considerable percentage are undoubtedly unavoidable. This dissertation on statistics logically leads up to the next question, the trite expression "high rate" of maternal mortality. What is the standard of comparison and what comprises it? In a country where the classification of puerperal deaths is fair, that is where the presence of pregnancy is not misconstrued as an inevitable cause of death above all pathology, there will be a quite different rate from ours, where almost nothing short of homicide takes precedence. Again, in a country where the live births constitute those which have survived the fatalities of the first

few days of life, we will also find a very different ratio. It is concerning this oft-quoted and misinterpreted "high rate" that I am protesting. I yield to no one in lamentation for the death of even one mother.

At the same time, I cannot subscribe to the frequent insinuation that all causes of death are automatically suspended by the existence of pregnancy. On the contrary, no one will deny that there are a number of disease conditions which magnify the seriousness as well as the fatalness of procreation. *I object to the eternal reiteration of the phrase "high mortality rate" because it is not true, either relatively or absolutely. It is not true in its relation to actual conditions in other countries.* Dr. Haven Emerson of New York has well said:

"Preventable puerperal deaths occur throughout the world, but international comparisons based on national mortality rates are misleading, and in the present state of governmental registration of births and deaths and the published tabulations based on them, conclusions should not be offered or opinions expressed implying relative excellence in the obstetrical, medical, or midwifery services provided for national population groups.

"... Among a thousand certificates of death with a puerperal cause stated, as received from the physicians at the registrar's offices of our city or state health departments, there will be about 400 in which the cause of death is stated to have been solely puerperal in character, without any contributing cause, the remaining 600 giving two or more causes of which one would be puerperal.

"... If the 600 joint cause certificates out of an average of 1,000 recording maternal death, with at least one of the causes stated to be of puerperal nature, were submitted to the procedure of other countries, none of which has adopted such a complete and systematic classification practice as prevails in the United States, it would be found that while about 88 per cent of these would be charged to the puerperal cause in the United States, some countries, such as England and Norway, would probably charge only 64 per cent to a puerperal cause, only one of some sixteen countries referring a larger proportion of joint causes to the puerperal list than does the United States. In fact, in a series of typical joint cause certificates involving a puerperal element in death, the practice of different countries would certainly vary by classifying the same certificates from 64 to 97 per cent under the puerperal title, rather than under a nonpuerperal contributory cause. It must be obvious that with almost two-thirds of our puerperal death reports giving one or more contributory causes, a wholly trustworthy international comparison of maternal mortality rates must await uniformity in registration practice for joint causes of deaths.

"... In view of the many variable factors entering into the end-result of maternal mortality rates in the modern nations, which can by no method or technic of tabulation or statistical estimates be reconciled to permit of significant comparison among the rates of their determining

causes, it seems unsuitable to apply the international argument of higher rates in the United States than in other countries as a forcible reason for greater efforts at life saving here, or as evidence that the quality of medical care of the pregnant woman in the United States is of an inferior character."

As I have asked on a previous occasion—is the more than one-half million deaths annually of heart disease, pneumonia, cancer and kidney disease less appalling, or are the 15,000 puerperal deaths more appealing? Here are some figures from the mortality report from 1929.* The 10 most important causes account for nearly 1,000,000, or about 72 per cent, and the next 5 causes bring the numbers to 1,114,354, or more than 80 per cent of the total. The number of puerperal deaths, which is sixteenth, is 15,318, or 1.1 per cent of deaths from all causes. These 15,000 are nearly equally divided between sepsis, albuminuria and convulsions, and accidents of pregnancy and labor. The statement is frequently made that "septicemia, toxemia, and hemorrhage account for 58 per cent of the deaths. Most of these are easily preventable." Will someone kindly rise and explain to us just what there is about pregnancy to make sepsis, toxemia, and hemorrhage so easy to control or eliminate? I don't believe it true. To say "most" or "easy," I think is going too far, especially when such a large percentage, perhaps the greater majority of the cases of sepsis, occur before any contact with a medical attendant.

Again, just why or how should the 3,870 deaths from albuminuria and convulsions in pregnancy (3.3 per 100,000) be so "easily" amenable to treatment or management while acute and chronic nephritis takes more than 106,000 (91.2 per 100,000)? Who will even suggest that pregnancy has such a beneficent affect on the kidney as to make it more responsive to diet, good care and advice? In the same year there were 6,775 deaths from acute and chronic nephritis in women of ages 15 to 44 (about 23 per 100,000).

This, then, brings us to the consideration of the vulnerable factors, if we are to reduce this so-called high rate. Before speculation on this part of the problem, let us consider a preliminary report of the findings of a study

*See Table No. 1.

made in 1932 under the auspices of the New York State Medical Society and the Vital Statistics Division of the New York Department of Health.[†] This covers the first 285 cases which was very thoroughly and efficiently investigated as nearly as possible at original sources. Of the 285 cases there were 85 of sepsis, 68 of hemorrhage and 66 of toxemia, accounting for more than 75 per cent. The proportion continues to hold among those hospitalized. Our propagandist friends lay great stress on the value of prenatal care. In this investigation we will find that the results are disappointing, "either absolutely or relatively.

The next section of this report is illuminating in that it gives an idea of the extent and the results of operative procedures. We note the uniformity of the proportions.

The final section of this report is especially interesting, for, of the 285 deaths, 147 are charged "to faulty management," and, as might be expected, with an increase in the proportion of sepsis. I am surprised that so small a percentage is attributed to the negligence of patient or family—I feel quite confident that this proportion does not hold true in this section of the country. Shall I say that the committee is generous in classifying 87 as being not preventable—that figure may be accurate, but I suspect it will not hold true as a working average. In connection with this particular section, it has been found in a very careful study covering fifteen states that 25 per cent of all maternal deaths follow some type of abortion and of this 25 per cent, 75 per cent died of puerperal septicemia.[‡] Then, if the proportion of 25 per cent holds true, there should be 71 deaths due to abortions—I would hesitate to classify that as either faulty management or not preventable. Of the 71, 54 would be due to sepsis, but I do not believe that only those would be included in the 56.

Of the vulnerable factors in our endeavor to reduce maternal mortality, I would say that by far the largest single item will be abortions, especially the criminal abortions. Findings of that committee working in fif-

teen states (not including New York or Colorado) and the able discussion of Dr. Fred J. Taussig, of St. Louis,^{*} are not only convincing but authoritative. Quoting Dr. Taussig: "If we try then roughly to estimate the total number of abortions that occur annually in this country we can, I believe, justly assume a minimum ratio of one abortion to 2½ confinements in the cities and a ratio of one abortion to 5 confinements in the country districts. On the basis of 2,500,000 confinements annually in the United States, distributed 40 per cent in the cities and 60 per cent in country districts, we obtain a total figure of approximately 700,000 abortions annually. This is certainly rather an underestimate than an overestimate of the actual conditions." The Children's Bureau has stated that of these 50 per cent are criminal, and this confirms my findings in this state. The average maternal death rate following abortion for the civilized world is approximately 2.1 per cent. Based on 700,000 abortions, this would mean that 15,000 women lost their lives in the United States every year as a result of abortion.

Of course, only a relatively small proportion of such deaths are properly recorded as to their cause.

Heynemann,^{*} quoted by Taussig, is convinced that the ratio of abortions to confinements has steadily increased until at the present time the number of abortions equals those of full-term confinements. This phase of our discussion is of such importance that I am constrained to quote at some length Taussig's valuable article:

"Previous to 1900, the most common cause of criminal abortion was illegitimate pregnancy. Since that time the world has undergone revolutionary changes affecting the lives of women and there has occurred simultaneously a marked increase in the number of wilfully interrupted pregnancies. We can divide the factors that have brought this about under four main heads:

1. Decrease in infant mortality.
2. Decrease in authority of church and state.
3. Economic distress.
4. Changed social position of woman.

"The advance of medicine in infant feeding and the prevention and treatment of infectious diseases has led to a reduction in the infant death rate of about 50 to 60 per cent. This marked saving of lives, formerly sacrificed, has had its repercussion in a desire to prevent further conceptions. Failures in such contraceptive meas-

^{*}Heynemann, in Halban-Seitz Handbuch, 7:566, 1926.

[†]See Table No. 2.

ures, has resulted in a desire to abort the pregnancy. Thus the number of abortions has increased to an astonishing degree among the mothers of three or more children.

"The World War brought in its wake a loss of faith and disrespect for the decrees of church and state. The state had for patriotic reasons demanded as many children as possible. With the fall of imperial governments the masses have come to realize that the children were but cannon-fodder to support the ambitions of their leaders, who only too frequently saw to it that their own families were properly restricted in number. A growing suspicion also arose that back of the strict doctrines of many churches opposing the limitation of families lay rather the desire to increase the number of their own adherents than any unselfish interest in the welfare of the masses. The skepticism has unquestionably played an important part in the increase of abortions.

"Economic distress has however been the most powerful and immediate factor in the increase. This is of course more true of those European countries such as Germany, Poland, Austria, Russia and the Balkan States, where privation made an increase in the family a real calamity. The housing shortage in the towns was an added reason for frequent abortions, especially in Russia. Now in the past year has come the plague of unemployment which has swept the world and left millions dependent upon charity of government doles for their support. It is inconceivable that this is not producing efforts to prevent the birth of more persons into an already starving universe. How great will be the toll of lives from this source in the present year it is difficult to predict.

"Finally the movement for women's rights before and since the World War has led up to a pronounced change in woman's economic and social status. In place of a meek resignation to fate, many women are now claiming a right to determine for themselves whether their life is to be spent in breeding more and more children. Greater freedom of sex life has also resulted in a change in ethical standards. Women employed in industry are anxious to avoid a pregnancy and additional children that will interrupt their life-work and add to their burdens."

An interesting fact in connection with abortion statistics is that deaths certified as due to criminal abortion are assigned to homicides in the International List of Causes of Death. This disposition is not followed by our State Registrar. It will explain some of the difference between our state and national statistics. With a shift of these figures we will find some changes like this: In 1929 the puerperal deaths numbered 155, according to the State Board of Health report. But three were non-puerperal, which leaves 152. Of these there were 37 acknowledged criminal abortions, (which does not include a considerable number under suspicion). For that year the homicides were 90. Now, if from the 152 we take 37, it would leave us 115, which will make a substantial change in our statistical rate. Of course, the addi-

tion of 37 homicides does not improve that feature of our state's reputation. Furthermore, for the five-year period the acknowledged criminal abortions total 153 of the 725. For the same period there were 180 deaths from septicemia—a considerable part of which are almost certainly the result of criminal work.

While on the subject of national statistics, it must be said that we have no way of checking on them. Copies of the original certificates are made and sent to the Bureau of Vital Statistics where they are classified strictly according to the International List and tabulated. The law specifically forbids the giving out of any of their information. With approximately 13,000 deaths per year and the indescribable chirography of the certificates, it would require several months of hard work to study, analyze, and classify them.

Another factor very closely related to abortions is infections, or septicemia. Certainly, the great majority of them are of exogenous origin and may, therefore, be largely avoidable. However, a considerable number is undoubtedly endogenous and provide many deaths for which the obstetrician is unjustly blamed. Without being able to submit positive evidence, it is my firm belief that the great majority of puerperal infections are from sources other than the medical attendant. As stated previously, the findings of the Children's Bureau investigation is that 75 per cent of all abortions result in sepsis.

Less than seventy-five years ago, the civilized world knew only too well what was a real "high maternal mortality rate." Then it was that every tenth, sometimes every eighth, prospective mother was practically predestined to be sacrificed on the altar of motherhood. I need not rehearse to you that enduring classic in medical and English literature, "The Contagiousness of Puerperal Fever," by our own Oliver Wendell Holmes,⁹ and which was followed by the keen observations and rational teachings of Semmelweis in Vienna between 1846 and 1848. The absolute rebelliousness of the contemporary profession despite the incontrovertible arguments and concrete evidence

of their startling improvement in mortality rates will ever stand as an inerascable blot of the blood of motherhood upon the leaders of the profession in the latter half of the nineteenth century. Thank God the truth eventually prevailed, as it always does, and the latter part of that century found the statistical ratio of puerperal sepsis miraculously declining.

Unfortunately the beginning of the twentieth century found undreamed-of changes in the social and economic structure of civilization and with them have come a new fiend, the criminal abortionist, to worry and exasperate us. The decrease in the death rate accomplished by the medical profession in that time has been fully offset by the conscienceless fiend who is not content to destroy the ovum, but so often sacrifices the unfortunate mother. *And today we are taunted with fallacious statistics and blamed for the crimes of those over whom we have no control.*

The third factor, while important, does not rank even close to abortions and infections. It is amenable to improvement, is sufficient for missionary work in the medical profession, and may be classified as needless interference. Here again it is impossible to submit any reliable statistical proof, but it is my opinion that induction of labor is a very important item. Next to this will come instrumental deliveries, forceps and versions. A third cause, while of lesser frequency, is also of importance—that is, cesarean sections. I have no doubt that the dramatic, which only too frequently becomes tragic, and the financial importance of this operation is too strong a temptation for at least some to resist.

In the fifteen-state study of the Children's Bureau⁷ it was found that of 7,234 reports only 3,370 (47 per cent) had not been operated, while of the remainder 2,649 (37 per cent) had endured an operation directed toward delivery, and 1,131 (16 per cent) had some operation other than for delivery, the latter usually secondary to delivery. The comment by the Advisory Committee on this chapter is significant:

"In this series of cases all the women died (and many of the babies), and, therefore, it is a record of failure. One cannot say that the opera-

tive procedures followed in many cases caused the deaths, but analysis of these procedures leads to many criticisms of the management of these cases.

"The physicians who delivered these cases cannot be blamed in all cases for results obtained, for in 43 per cent of the operative deliveries they had not seen the women before labor or before the acute emergency had occurred. Under these circumstances it is a well-recognized fact that the operation of election is not always possible; the physician many times is forced to do something which he appreciates may not be the best but which at the time seems justifiable."

A recent author of a text-book on obstetrics says, "We should teach that childbirth is a natural and normal function, to keep the accoucheur from interfering too much in it. That some physicians interfere too much is a sad truth, but most accoucheurs are honest and loyal in their trust, and to hide the pathologic nature of childbirth from them is no compliment either to their mentality or to their honesty, and to hide it from ourselves is like the action of the mythical ostrich." After all this, I believe the consensus of opinion is, as has been cleverly expressed: "Patience is a better obstetrician than dexterity."¹⁰

While we might properly rejoice at any and every little decrease in the maternal mortality rate, there are some conservatives ever ready to explain it away. We are informed that the small fraction of improvement is easily accounted for by declining birthrate, which supposedly indicates that fewer women are being exposed to the risks of childbirth. I am pleased to say that I cannot concur in that theory. "Engelsmann in extensive statistics from the city of Kiel, contended that *there is no decrease in the number of pregnancies, but that the decrease in the birthrate is counterbalanced by the increase in abortions.* Especially significant is the decrease in the number of children among fertile families and also the fact that while in the laboring classes the percentage of births is still the highest, it also contains the highest percentage of abortions."⁸ Further than that, who knows how many suicides and female infections have their exciting cause of death in the pregnant uterus. In 1929 there were 3,740 suicides of women, of these 2,174 occurred in the ages 15 to 45. Your guess will be as good

as mine as to how many of these were potential mothers.

I cannot close this discussion without some reference to prenatal care. I have no quarrel with any of those worthy associations. Their "highly specialized" services are indeed excellent, but I am sure they have made no more impression on the statistics of maternal mortality than has been made by the tens of thousands of conscientious accoucheurs throughout the length and breadth of this land. I could quote many disparaging reports as to the statistical benefits, but that should not contribute to the abandonment of their commendable work. Nevertheless, when a statement is made "that nearly two thirds of the deaths which occur could be prevented if expectant mothers received the type of care, etc.,"^{11, 7, 8} pray tell us what magic or secret influence do they wield? "The necessity of prenatal care has been intensely promulgated in Massachusetts for fifteen years and recognized for more than twenty-five. The results have been good, but not enough materially to influence mortality statistics." And again I want to go on record as emphatically representing the innuendos as well as the direct accusations that the quality of obstetric service given by the vast majority of American doctors is in any manner or degree inferior to that provided by the same classes of medical men in any other country. I hold no brief and offer no apology whatsoever for faulty work, but will gladly contribute to the limit of my ability to raising those standards and averages higher and higher.

The extravagant propaganda for prenatal and subsequent care of a very large percentage of our population approximates an activity comparable only to our public school system and can become effective only when educated and well trained physicians, nurses, and assistants are organized and added to our already topheavy population of government employees. "No comprehensive plan of maternal care will function properly without the education of the laity who must realize the needs, be willing to meet the costs, and cooperate both individually and collectively in such a plan. There are many ways of educating the pub-

lic, but it should be done systematically under suitable auspices so that the proper information is disseminated in a manner to make the needed impression. Personal contact with properly educated personnel including physicians, nurses, midwives and others is one of the best means."¹⁴

In closing, I can not do better than quote from a report I once made to the White House Conference on maternal morbidity and mortality: "It is a fact that pregnancy does not confer any immunity against any disease known to womankind—not even super-impregnation. Some diseases are not at all affected by pregnancy. . . . On the other hand there are some conditions made distinctly worse by the occurrence of pregnancy, as in nephritis, and others in which the hazards of pregnancy are increased by the co-existence of the disease, as in syphilis. In either case there can hardly be any fixed rule of procedure and the management of such cases calls into action all the intelligence, the courage, the ability and the ingenuity of the medical attendant. The place for the preparation and training of that attendant is in the well qualified and properly equipped medical school, post-graduate as well as under-graduate."

I am not a bit optimistic about the prospects, or even the possibility, of improving fetal and maternal statistics from the professional side, very perceptibly in any other way. I am not informed of the proportion of medical graduates who take and assimilate the advantages of post-graduate instructions and training, either by attendance at teaching clinics or medical meetings, but I wish it were greater. Unfortunately, in every class graduating from every medical school there are two groups, the one to whom the diploma is but a letter of introduction to greater opportunities—their degree abbreviation, M.D., is construed as "More Digging"—and the other wherein it is simply the top of the hill and they rejoice that there are no more hills to climb—the titular letters, M.D., indicating "Mostly Done."

The continued broadcasting of erroneous statistics and fallacious statements about the seriousness and the dangers of maternity,

especially in the U. S., and the equally frequent and persistent insinuations derogatory to the general practice of obstetrics in the U. S. today is absolutely unjustifiable and indefensible. I will grant that there is room for improvement—God help the day when there is not—but a maximum improvement in general obstetric management will have a comparatively insignificant effect on these statistics.

But there is great opportunity for improvement from the patient's standpoint and the field is available. The routes are posted "Education," "Social and Moral Improvement," "Sterilization of the Unfit," "Financial Emancipation," and "Political Progress."

TABLE 1. COMPARISON OF DEATH RATE BY COUNTRIES

	Average Maternal Mortality Rate per 1,000 live births	Crude Death Rate from all causes per 1,000 population in U. S.	registration area and in Colorado
		1929	1928
United States, 1930.....	6.7	11.9	12.1
Colorado, 1930.....	7.4	12.5	13.8
France, 1925-27.....	2.5	18.0	16.4
Denmark, 1923-27.....	2.6	11.2	11.0
Norway, 1923-27.....	2.8	11.2	10.8
Finland, 1923-27.....	3.1	15.0	13.5
England and Wales, 1923 - 27.....	4.0	13.4	11.7
Switzerland, 1923-27.....	4.4	12.4	12.0
Germany, 1923-27.....	5.1	12.6	11.6
Australia, 1923-27.....	5.5	9.6	9.5
Belgium, 1923-27.....	5.6	15.0	13.2
New Zealand.....		8.8	8.5
Sweden.....		12.2	12.0
Italy.....		16.1	15.8
Spain.....		18.0	18.4
Japan.....		20.0	19.9
Chile.....		25.8	24.4

Deaths From Principal Causes in Registration Area, 1929

1. Disease of the heart.....	245,244
2. Cancer.....	111,569
3. Nephritis.....	106,056
4. Violence (except suicides).....	103,942
5. Cerebral hemorrhage, etc.....	100,061
6. Respiratory tuberculosis.....	78,624
7. Congenital weakness and malformations.....	68,353
8. Influenza.....	64,583
9. Pneumonias.....	62,907
10. Other respiratory diseases (except tuberculosis).....	53,325
	994,661=72 %
11. Diseases of the arteries, including embolism and thrombosis (not cerebral).....	29,855
12. Auto accidents.....	29,531
13. Diabetes.....	21,829
14. Diarrhea and enteritis under 2 years.....	20,788

15. Appendicitis.....	17,687
16. Puerperal septicemia.....	5,822
Puerperal albuminuria and convulsions.....	3,870
Accidents of pregnancy and labor.....	5,626
	15,318= 1.1%

1,129,672

Total deaths from all causes..... 1,386,363

Summary of Death Rate, All Causes

Deaths, all causes, all ages, both sexes.....	1,191.9 per 100,000
Deaths, all causes, all ages, females.....	537.6 per 100,000
Deaths, all causes, 15 to 44 yrs.....	114.5 per 100,000
Deaths, puerperal, 15 to 44 yrs.....	13.2 per 100,000

From U. S. Census report, 1930.

TABLE 2. ANALYSIS OF CONSECUTIVE MATERNAL DEATHS IN NEW YORK STATE

	Total	Sepsis	Hemorrhage	Toxemia	Embolus	Surgical	Other
Total.....	285	85	68	66	32	31	3
Death in hospital.....	243	77	57	60	22	26	1
Death not in hospital.....	42	8	11	6	10	5	2
Prenatal Care—							
Adequate.....	75	18	20	14	12	10	1
Inadequate.....	125	41	24	28	15	15	2
None.....	75	26	15	24	4	6	—
Not reported.....	10	—	9	—	1	—	—
Total with operative procedures.....	180	49	44	38	18	31	—
Cesarean section.....	64	13	13	17	5	16	—
High forceps.....	8	3	—	2	1	2	—
Low forceps.....	39	12	9	4	7	7	—
Version.....	46	10	18	10	2	6	—
Induced labor.....	10	1	4	4	1	—	—
Perineal incision.....	1	1	—	—	—	—	—
Craniotomy.....	1	1	—	—	—	—	—
Breech extraction.....	1	1	—	—	—	—	—
Manual removal of placenta.....	3	2	—	1	—	—	—
Other.....	7	5	—	—	2	—	—
Gestation—							
Full term.....	202	67	45	31	25	31	3
8 months.....	36	7	11	15	3	—	—
7 months.....	30	6	6	15	3	—	—
Less than 7 mo.....	17	5	6	5	1	—	—
Avoidable Factors—							
Faulty management.....	147	56	37	22	9	23	—
Negligence of patient or family.....	49	12	6	28	2	1	—
Not preventable.....	87	17	23	16	21	7	3
Negligence of midwife.....	1	—	1	—	—	—	—
Not determined.....	1	—	1	—	—	—	—

N. Y. State Medical Society and Board of Health.

TABLE 3. DEATHS FROM PUERPERAL CAUSES PER 100,000 FEMALE POPULATION OF AGES 15 TO 44, COMPARED WITH THE SAME DEATHS PER 1,000 LIVE BIRTHS. UNITED STATES BIRTH REGISTRATION STATES OF 1915, CALENDAR YEARS OF 1915 TO 1929*

Calendar Year	Deaths per 100,000 Female population of ages 15 to 44	Deaths per 1,000 live births	Per cent first Children among total births
1929.....	47.4	6.1	*
1928.....	49.9	6.14	30.86
1927.....	53.1	6.25	30.17

*From statistical Bulletin, Metropolitan Life Insurance Company.

1926	52.9	6.18	29.51
1925	55.2	6.16	29.43
1924	58.4	6.24	29.21
1923	59.2	6.37	27.81
1922	58.4	6.23	28.75
1921	65.5	6.54	29.78
1920	75.6	7.62	29.04
1919	64.9	6.82	24.14
1918	92.0	8.90	27.81
1917	65.7	6.26	27.74
1916	64.5	6.21	*
1915	63.1	6.08	*

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- ⁸"Abortion in Relation to Fetal and Maternal Welfare," by Fred J. Taussig, M.D. American Journ. of Obs. & Gyn., Vol. 22, Nos. 5 and 6, Nov. and Dec., 1931.
- ⁹Read before the Boston Society for Diffusion of Useful Knowledge in 1842. Published in 1843.
- ¹⁰"Obstetric and Gynecology Responsibilities," by Geo. Gray Ward. J. A. M. A., July 3, 1926.
- ¹¹Metropolitan Statistical Bulletin. Jan., 1933, pg. 5.

TABLE 4. DEATHS FROM PUERPERAL CAUSES IN COLORADO FOR YEARS 1928 TO 1932

Live births	Year	Accidents of pregnancy	Puerperal hemorrhage	Accidents of labor	Puerperal septicemia	Puerperal thrombosis, embolus, sudden death	Puerperal albuminuria and convulsions	Pneumonia, cardiovascular, etc.	Total
19155	1928	18	20	8	62	9	27	32	176
18025	1929	9	6	10	58	10	30	29	152
18878	1930	11	13	6	59	11	26	14	140
18461	1931	13	10	9	38	10	31	15	126
17566	1932	13	13	15	40	5	22	23	131
	Total	64	62	48	257	45	136	113	725

From Colorado State Board of Health.

OBSTETRICS IN THE SMALL GENERAL HOSPITAL*

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FORT COLLINS

Numerous articles have appeared in recent journals treating of the subjects of maternal and infant mortality. This is as it should be, since the aim of modern medicine is to minimize mortality and morbidity. The approach to this study is made difficult by the lack of uniform terminology which makes comparative statistics relatively useless. This point was emphasized in an article by C. T. Hemmings¹, who gives a report of 1,073 identical death certificates which were submitted by the United States Bureau of the Census to seventeen different countries. The interpretation of these certificates as to cause of death, whether puerperal or not, showed a variation from 64.3 per cent to 97.2 per cent. Most of the articles referred to have been written by full time obstetricians working in lying-in hospitals or in maternity wards of large general hospitals. Statistics of value have been compiled by

these men. However, we frequently see mortality statistics by cities or states where the majority of deliveries have been done in the home or in the small general hospital by the general practitioner or by those whose practice includes not only obstetrics but surgery, gynecology, and more or less general medicine.

It is as a representative of this latter class that I am reporting one hundred consecutive cases delivered during 1929-32 inclusive at the Larimer County Hospital. These cases were all attended personally and with a few exceptions were examined within the first three months of pregnancy. At the first consultation a complete history was taken, physical examination made, and thereafter the patient was seen every four weeks until the seventh month and then every two or three weeks until delivery. An effort was made to keep the gain in weight within twenty-five pounds of the normal pre-pregnancy weight. Speculum examinations were made at the first visit and any existing infection

*Read before the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs, September 14, 1933.

treated. Subsequent pelvic examinations were made only if vaginal irritation developed. X-rays were taken on all primiparas the first two years, but later this practice was given up as a useless routine procedure in my hands. Pictures are now taken only in special cases. External versions were done whenever indicated.

As stated, these cases were all delivered at the Larimer County Hospital which is probably fairly representative of the average thirty-five bed hospital. The care of maternity cases was apparently not a part of the original function of the hospital and no nursery or delivery rooms were constructed. Later, to meet the demand, private rooms were utilized and equipped for that purpose. Too often in the small hospital and occasionally in larger hospitals the obstetrical department is the "Little Orphan Annie" department of the hospital where the worn-out linen, the patched gloves, and the rusty instruments from the surgery are discarded. That such a setting is not conducive to grade A obstetrics is self-evident. Because of the small size of the hospital there are no exclusive obstetrical rooms or wards but the maternity cases are placed in private rooms, two-bed wards or a four-bed ward according to the patient's finances. Medical and surgical cases are also handled on this same floor and in the same wards. No infected cases are placed in the wards with obstetrical patients but are frequently attended by the same nurses, yet no case of cross infection resulted in this series.

No pet schemes were used in the handling of these cases. On entering the hospital the patients were shaved, scrubbed with soap and water, and given an enema if needed. Rectal examinations were made as often as necessary to determine the progress of labor. Vaginal examinations were made in doubtful cases, but only after the patient was again scrubbed, the hands of the examiner scrubbed, and sterile gloves worn. Morphine was used as needed during the first stage of labor and occasionally in the second stage especially in persistent occiput posterior cases. Pituitrin was seldom used and then only with the head on the perineum.

On the delivery table the patient was

again scrubbed with green soap and water, then sterile leggings and drapes applied. During delivery a weak solution of lysol was freely used to sponge the perineum. The patient was always catheterized and the membranes ruptured as soon as cervical dilatation was complete. As the head began to distend the perineum, green soap was occasionally used as a lubricant, but the time-honored custom of ironing out the perineum has been given up as it often gives more distress to the patient than the labor pains. No iodine or mercurochrome were used at any stage of labor. Antiseptics probably have their place but cannot be substituted for asepsis. Where it seemed that the perineum would be unduly stretched or lacerated, episiotomy was done, a posterior midline being the position of predilection unless the perineum was very short, then a left posterolateral was done. Plain or chromic catgut sutures were used for repairs.

Time was given for the placenta to separate into the lower uterine segment before it was expressed. An ice bag was placed over the uterus rather than to use ergot or pituitrin; however, these were both occasionally used. A sterile four-inch, five-yard pack was always at hand and was introduced into the uterus, using a sponge forcep, with one hand as a posterior speculum in cases of severe bleeding. This pack was partly removed in four to six hours and the rest soon after if there was no further evidence of bleeding and there usually was not. The cervix was inspected for lacerations after a forceps or breech delivery and repairs were made if necessary.

Ether was used for all operative procedures; it is the anesthetic of choice even in spontaneous deliveries if properly given, though chloroform was used thirty times in the first half of the series. The nice results that can be obtained during the second stage even of a hard labor by the use of a properly given ether anesthetic is insufficiently appreciated. Doctors often do not have time for this and it can best be handled by a trained nurse or anesthetist. Of course, cooperation on the part of the patient is necessary but not always obtained. I believe that anesthesia in the second stage of

labor is deserving of more thought than it is receiving in general. If the doctor has not the time or the inclination to handle this part of the labor some one who understands anesthetics and how to instruct the patient should be present. This will decrease the temptation ever present to prepare and drape the patient and then do some operative interference if time drags a bit, while if more time had been given and the patient rested and instructed, spontaneous delivery would have resulted.

The following brief statistics are self-explanatory and probably represent a fair cross-section of any 100 cases as to problems presented.

	NUMBER	AVERAGE AGES
Para 1.....	55	26 years
Para 2.....	28	29 years
Para 3.....	9	30 years
Para 4.....	6	34 years
Para 5.....	1	
Para 6.....	1	

POSITION LAST MONTH

L. O. A.	42
L. O. A.?	5
L. O. P.	7
L. O. P.?	2
L. O. T.	6
L. S. T.	5
Undetermined	1
R. O. A.	16
R. O. A.?	1
R. O. P.	8
R. O. T.	4
R. S. T.	2
Transverse Arrest	1

EXTERNAL VERSIONS AT SEVEN TO EIGHT MONTHS 7

DIFFICULT LABOR PREDICTED 10

Normal 6
Forceps 1
Cesarean 3 (two previously cesarean)

X-RAYS 28

POSITION DELIVERED

L. O. A.	43
L. O. P.	3
L. O. T.	2
Cesareans	
L. S. A.	7
Cesarean 2	
Double Footlet 2	
Transverse Arrest 1	
L. M. A.	1
R. O. A.	36
R. O. P.	5
R. S. A.	1
Precipitate	1
Not Recorded	1

OPERATIONS 30

Cesarean Section	6
Forceps	9
Episiotomy	13
Hooks	2

LACERATIONS 60

First Degree	49
Second Degree	11

PLACENTA PRAEVIA 1

ADHERENT PLACENTA 2

Manual Removal 1

INFECTIONS 2

Both Cesarean

HEMORRHAGES

1000 c.c.	5
500-700 c.c.	3
300-500 c.c.	18
Less than 200 c.c.	3
Prepartum	1

AVERAGE STAY IN HOSPITAL 5 DAYS

(Average for normal cases 4 days)

NUMBER OF PATIENTS HAVING TEMPERATURE ABOVE 100 DEGREES 29

PREMATURE BABIES 9

Died 3

GIRL BABIES 45

BOY BABIES 55

A short clinical classification will shed a bit more light on the problems encountered, the morbidity resulting, and the mortality risk. Of the 100 cases, 51 were considered normal in all respects—prenatal, natal and postnatal—which would mean no serious problems before labor, a normal spontaneous delivery, not more than a first degree laceration, hemorrhage not in excess of 500 c.c., temperature under 100 degrees, and no postpartum complications. Twenty-one other cases were considered near normal. Seven had temperatures above 100 degrees, but not for more than two days and without other symptoms. There were 7 simple episiotomies, three with temperatures above 100. Episiotomies are not considered more serious than lacerations of the same extent. Seven prematures are included in this classification as there were no complications. Of these premature labors the probable causes of three were mitral stenosis grade 2-3, laceration of cervix grade 2-3, and premature separation of placenta.

In the remaining 28 cases it is felt that the service rendered was a definite factor in reducing morbidity and in two or three cases probably prevented mortality. These 28 cases were made up of the following:

9 forceps deliveries, 5 low and 4 midplane.
2 breeches delivered with hooks.
6 cesarean sections to be discussed later.
1 uterine inertia.
1 grade 2-3 mitral stenosis.
1 adherent placenta requiring manual removal.

- 1 fibroidectomy at five months for fibroid of lower anterior uterine wall in primipara aged 36. This patient went into labor six weeks prematurely, but a viable child was secured.
- 1 case of marked double hydronephrosis and ureterosis with associated infection requiring frequent ureteral dilatation and drainage. Delivery was normal, but the baby was born blind or with limited vision.
- 1 placenta previa, marginal insertion.
- 5 cases of hemorrhage in excess of 1000 c.c. (two counted previously under forceps deliveries). In all five, intrauterine packs were used to control the hemorrhage. One case, a spontaneous delivery, continued to bleed after leaving the hospital—which would suggest retained placenta or membrane though the placenta at time of delivery seemed complete.
- 2 cases of severe anemia, one a primipara of 33 with a history of anemia at 18 of sufficient severity to necessitate discontinuance of school. This case was carried through by diet and iron to normal completion except for a three-day unexplainable post delivery fever. The other case, one of twins in a para 2 who also gave a history of anemia in her late teens and whose first child died of acute lymphatic leukemia at two years, was given a 600 c.c. indirect blood transfusion at eight months and carried through to normal delivery.

Six cesarean sections in a series of 100 cases are unquestionably too many and no effort at justification will be made, but a brief explanation may help someone else to avoid a similar pitfall. Three sections were done on elderly primiparas who were very desirous of having a live baby. All three were given a fair test of labor but resort to high forceps or version and extraction would have been necessary to have effected a vaginal delivery. Previous attempts with these procedures had materially increased my fetal mortality. One of these patients weighing 200 pounds was sectioned in spite of the fact that she previously had had a pelvic infection and that the membranes had been ruptured 24 hours. A general low grade infection of abdominal wall, pelvic peritoneum, and uterus followed, giving many days and nights of anxiety and much placing of drains above and below. This patient was 40 days in the hospital, and I feel that the words of Ambrose Pare, "I dressed her but God healed her," are appropriate. But here the quotation must stop, for she paid me no fee and no praise can be offered. This case should have been delivered vaginally.

The other three cesarean sections were women with small pelvises; two had previously been delivered by section. One was a small Mexican woman whom I had treated for a vaginal infection during the course of pregnancy. The membranes ruptured four days before regular labor set in. The head remained floating after the pains became so severe that one-sixth grain of morphine would not relieve them and the cervix would admit but two fingers. Remembering the previous experience, all blood and amniotic fluid were aspirated from the abdominal cavity which was then thoroughly washed out with normal saline and a drain placed in the abdominal wall. A low grade infection of the uterine cavity followed, probably due to insufficient drainage of the uterus, as the infection cleared up promptly after the cervix was dilated and a tube placed in the uterus. This patient was able to leave the hospital in twenty days. An extraperitoneal section or a hysterectomy might have saved trouble in these cases. I feel that three of them could have been delivered by version and extraction; one at least should have been. Surely in the presence of known possible infection no cesarean section should be done if vaginal delivery is possible, even though the chances of delivering a live baby are markedly reduced by vaginal delivery.

Of these 100 cases, 29 had temperatures above 100 degrees. Twenty of these had some sort of operative procedure performed, from stitches to cesarean section. Of the 29 cases with temperatures above 100, only eight had more than two days of such temperature; five of these eight were cesareans; two had mid forceps with hemorrhage; only one was a spontaneous delivery—a case of anemia before mentioned. If fever is an indication of morbidity, then it is easy to see in this series that it not only paralleled operative interference cases but was confined almost exclusively to them.

Hugh Cabot² in 1921 before the Canadian Medical Association advanced a line of reasoning which he called "The doctrine of the prepared soil" and which he applied specif-

ically to postoperative cystitis but which I believe can be applied as well to infections of childbirth. Dr. Cabot maintains that these infections are not the result of bacterial action alone, but from the action of bacteria on tissue already prepared by trauma. Though it is true that a uterus denuded by the removal of the placenta offers a site for infection, most infections of childbirth that I have seen have followed where additional traumatization, the result of operative interference, has taken place.

In this small series there was no maternal mortality. There were three fetal deaths, all premature. Figures assembled by the White House Conference show the maternal mortality in the United States to be 6.5 per 1000 live births and 75 fetal deaths per 1000 live births. Many valuable suggestions have been made relative to methods of improving our obstetrics and lowering our mortality rates. A. M. Mendenhall³ of Indianapolis suggests among others the following:

"Avoidance of short-cut methods which are of value only in conserving the attendant's time.

"Better undergraduate work in obstetrics.

"Postgraduate work in obstetrics is of value to a limited extent" and we would add if taken where conservative obstetrics is taught and demonstrated, but not if taken where operative interference is the rule.

Richard A. Bolt⁴ of Cleveland says:

"Sepsis, toxemias, and hemorrhage play the major tragic roles, and these are associated largely with hurried, operative, and bizarre obstetrics."

Summary

This series of cases is too small to use as a basis for conclusions, but the following impressions have been formed or strengthened:

1. Though pregnancy and labor are natural physiological processes they are frequently fraught with pathological misgivings.

2. X-rays as usually taken by the average doctor are useless in determining the relative relationship between the size of the head of the fetus and the maternal pelvis.

3. Most breeches can be changed before the seventh month by external version.

4. It is seldom possible in a woman whose measurements are not grossly abnormal to predict whether labor will be easy or hard.

5. Hence, it is safer to let her go into labor normally and watch for complications than to invite them by inducing premature labor.

6. Precipitate labors can best be prevented by taking heed to the past history.

7. Limiting the mother's gain in weight to 25 pounds above normal pre-pregnancy weight will lower the number of difficult labors.

8. Severe postpartum hemorrhage is best controlled by the prompt introduction of a gauze pack kept always at hand.

9. Cervical repairs are impossible, vaginal and perineal repairs inaccurate if the doctor must hold the patient's legs, the light, and a needle holder. A scrubbed nurse and the patient in the lithotomy position are always in order.

10. Episiotomy (midline when possible), after the perineum has been reasonably well dilated, conduces to better perineums than repaired lacerations.

11. Obstetrics needs to be elevated from the basement to the operating room floor, not only physically, but also in the minds of doctors and laymen.

12. This society could well afford to appoint a committee of two or three from each county to investigate maternal deaths and compile statistics for use as future reference.

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CERVICAL CESAREAN SECTION*

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This paper comprises the discussion of an operation which is rapidly gaining favor, but which has not been accorded the full acceptance that it merits. I refer to Cervical Cesarean Section or Laparotrachelotomy, which consists of an abdominal delivery through an incision in the cervix or lower uterine segment. It is a singular fact that, after having performed a limited number of these cervical sections, Dr. J. B. DeLee in 1919 said, "I believe that this operation is predestined to replace the classic cesarean section." My objective will be to attempt to convince you that the cervical cesarean should almost entirely supersede the classic operation. In order that an operation may be generally accepted, it must necessarily be one that may be performed by any surgeon. Surely anyone capable of performing abdominal surgery may do this operation without hesitation, provided he takes the trouble to familiarize himself with its technic.

Local infiltration anesthesia is the anesthetic of choice. Complications of the heart and lungs are thereby lessened; toxicity is not exaggerated; blood loss and subsequent uterine hemorrhage are minimized; gastro-intestinal disturbances and shock are almost eliminated. We use up to 10 ounces of one-half to one per cent novocaine solution to which two minims of 1-1000 adrenalin chloride are added to the ounce. Nitrous oxide and oxygen, when given by an expert, have given excellent results. Ethylene is recommended. Ether is next in preference. H. J. Stander has shown conclusively that the same abnormal changes present in the blood stream of eclampsia cases are produced by any of the inhalation agents. Spinal anesthesia is to be condemned. E. Preissecker of Vienna states, "1. The pregnant woman possesses a greater sensitiveness to lumbar anesthesia. 2. It is impossible to properly estimate the dose for gravid women; therefore, a certain dose of anesthetic may be in-

sufficient for one woman and result in the collapse of another." DeLee has maintained as much for a great many years.

The main steps in the operation are as follows: The patient is catheterized and the catheter is allowed to remain in the emptied bladder. She is put in the Trendelenburg position. This is advantageous in any type of cesarean unless the patient has cardiac decompensation. A hypodermic injection of one c.c. of ernutin or gynergen is given. A median incision is made from two inches below the navel to the pubis. It is important that the incision extends down as far as possible. Care should be taken in opening the abdomen to avoid injury to the bladder, which in some cases rises during pregnancy and labor. A laparotomy sponge is then placed inside of the incision. A transverse upward curving incision is made through the peritoneum on the anterior surface of the lower uterine segment, 2 cm. below the firm attachment of the peritoneum to the uterus. The peritoneum together with the bladder is stripped from the uterus toward the pubis. The mid-portion of this flap is held with an Allis forcep. The upper flap is then pushed toward the navel, to the thick portion of the uterus. An area of lower uterine segment is now exposed. If insufficient in size to deliver the baby, the bladder is pushed down farther. It is then held out of the way by a well-rounded retractor. A longitudinal incision, midway between the two round ligaments, is made into the lower uterine segment. A suction apparatus and sponges are used to take up the spill of liquor and blood. Collins forceps are clamped to the sides of the uterus to stop the bleeding. The operator's finger is then placed in the baby's mouth, the face brought forward, the chin out of the uterus and the cesarean forceps are applied with the concavity of the blades toward the pubis. Should the occiput be more easily brought forward, the concavity is placed toward the navel. Should the breech present, grasp a foot. If you are unable to deliver the baby

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head first, you may do a version and extraction. If unable to provide enough room for delivery, you may extend your incision a short distance into the thick portion of the uterus. The shoulders are delivered slowly and carefully. The patient is then given ten units of pituitary solution into the arm. If no bleeding occurs, wait a few moments for the placenta to separate. Manual removal is not performed at once. You do not manually remove every placenta in childbirth, so why do it here? If the cervix is fully dilated some authors even advise closing the abdomen and expressing the placenta afterwards. Often the placenta separates spontaneously. If bleeding occurs, make traction on the cord. This is permissible as one can watch for any beginning inversion of the uterus. The latter is wiped out with a warm laparotomy sponge and then packed with a long narrow sponge. This is attached to a shuttle, which is passed through the cervix into the vagina, thus insuring an open cervix and preventing lochiostasis. The sides of the uterine wound are then raised with Collins or Allis forceps and interrupted No. 2, 20-day chromic catgut sutures are introduced 1 cm. apart going down to, but not through, the uterine mucosa. A second row of interrupted No. 1, 20-day chromic catgut sutures are applied. We generally use interrupted and loosely tied sutures. They require a little more time of application, but are of advantage if infection of the uterine wound occurs. Then the fascia over the lower uterine segment is reunited with a layer of interrupted sutures in such a way that one edge overlaps the other. This is a very important step in the operation. If sufficient tissue is present, the upper flap of peritoneum is pulled down over the fascia and fastened with interrupted sutures. Finally the bladder flap is raised up and sutured with continuous 20-day, No. 1 chromic catgut. The abdomen is then closed in layers without drainage. The shuttle and gauze are removed six hours after the operation. The patient is catheterized routinely twelve hours after operation to avoid overfilling of the bladder. Two grains of dessicated thy-

roid extract are administered three times daily, starting the second or third postpartum day as soon as the nausea ceases.

DeLee maintains that the operation has many advantages over the classic cesarean. "At the time of operation, the spill of liquor and blood is limited to the lowest portions of the abdomen; the hemorrhage is less and more readily controlled; also the omentum and intestines are not in the way."

Postoperative complications are less frequent. The lower uterine segment, pelvic peritoneum, and pelvic connective tissues are many times more resistant to infection than the peritoneum over the body and the body of the uterus itself. "Acute dilatation of the stomach, intestinal obstruction and peritonitis are rare because there is little spill and very little exposure and manipulation of the peritoneum and none of the omentum or intestines; also, because the uterine sutures are in the lower uterine segment or cervix, which is the non-contractile portion of the uterus and which is at rest. No seepage of lochia occurs because the muscle tissue is covered by fascia and peritoneum." Rupture of the uterus after the cervical cesarean is rare, there being only 23 cases reported in the entire world literature. All but three of these cases occurred during active labor. The incidence of rupture after the classic operation in subsequent labors is 4 per cent—30 per cent of these mothers and 70 per cent of the babies die. Also a number of ruptures occur during pregnancy when trouble is not anticipated. I have seen scars resulting from the classic cesarean so thin that you could pierce the uterine tissue by a scratch. Greenhill reports a study of 58 pieces of scar tissue which were removed in cases where cervical cesarean was repeated. In most cases the wounds had healed very well and even in the cases in which the scars were weak anatomically, they withstood the distention produced by pregnancy and the stress of labor. Not a single case of rupture of the uterus occurred after a series of 1000 cervical operations performed up to July, 1930.

Adhesions are thin after the cervical cesarean; in 85 per cent of cases they are dense

and troublesome after the classic operation. I have experienced little trouble with adhesions between the bladder and the uterus at a subsequent operation. Should infection of the uterine wound occur, the abscess may be evacuated through the lower end of the incision or by anterior colpotomy. More extensive surgical intervention is necessary and at a much increased risk to your patient should uterine wound infection occur after the classic incision.

Probably the greatest single advantage of the operation is the fact that a woman may be given a long test of labor, especially the border line cases which often enter labor with the head unengaged and in an unfavorable position. The mortality of the classic operation increases with every hour after the sixth hour that the patient has been in labor and particularly when the membranes are ruptured. Authorities are in disagreement as to whether the rupture of the membranes increases the danger of infection. However, all admit that the actual duration of the labor is the chief factor in ascending infection. By being able to give your patients a test of labor, many cesareans can be avoided. If you are opposed to this operation and adhere to the idea that the incision into the uterus should be made into the fundus or the anterior wall of the uterus you are urged to make your incision as low as possible in the anterior wall of the uterus, as then your operative results will be better and your operation safer. Experience has shown that pulmonary embolism is three times as common after the fundus incision as it is after the cervical incision.

If your patient has not been in labor, the operation will be technically a little more difficult. One usually finds, however, that toward term the lower uterine segment has formed sufficiently well to permit the operation. I have observed only one patient who did not form a lower uterine segment. She previously had had a trachelorrhaphy subsequent to her first childbirth. Even a breech case, seen recently, with a huge uterine fibroid completely filling the pelvis and blocking the outlet, had enough of a segment without pains to permit extraction

of the baby without incising the thick portion of the uterus. In many cases the patient may be allowed to have a few hours of pain which will form the lower uterine segment.

Probably the greatest "hold-out" argument against the operation is the elective cesarean. Enticingly low mortality figures have been published. If any given operator is able to do mostly elective cesareans, then his incidence of cesarean is entirely too high. An increase in the number of elective cesareans of course precludes trial labor. May I distinguish here between a patient not in labor and an elective operation, as the former may be done for a multitude of indications. At that, we believe that the operator's claiming a low mortality rate could further lower their mortality by adopting the cervical cesarean. On the other hand, one does not need to allow his judgment to become so warped as to think that every patient should be allowed a test of labor.

Some operators prefer the transverse incision into the uterus. The longitudinal incision is superior for the following reasons: 1. Hemorrhage may occur from the ends of the transverse incision, which gets too close to the large vessels in the broad ligaments. 2. There is greater danger of embolism from the transverse incision because the infection is nearer these vessels. 3. The transverse incision is difficult to suture because the fundus retracts from the cervix.

The cervical cesarean operation has been done successfully after repeated vaginal examinations, after trials at forceps delivery have been made, and in frankly infected cases. You often hear the comment that vaginal examinations in labor do no harm when a cesarean section follows. The following figures are from Rothert who made a study of the maternal mortality in fifteen states, which included all the puerperal deaths in those states in the years 1927 and 1928: Fifty-two per cent of the cases which died following cesarean section had been examined vaginally; of the 231 women who had no vaginal examination, 20 per cent died of sepsis; of the 254 women who had vaginal examinations, 34 per cent died of sepsis. In other words, almost twice as

many deaths from sepsis occurred among women who had vaginal examinations. Eardley Holland has stated, "The maternal mortality in the cesarean patients after attempted forceps delivery was 27 per cent." These operations were of the classic type. Surely this will convince anyone of the folly of such a procedure. We do wish to imply that the cervical operation is to be used in all frankly infected cases, as the Porro cesarean will give a much smoother recovery in patients who are infected late in labor.

Many authors state that 75 per cent of their placenta previa cases have been treated by cesarean section. This condition can be most graciously handled by the cervical cesarean. Should bleeding occur from the placental site it is more readily sutured, as you can visualize the field in which you are working and suture the bleeding area. These bleeding sinuses can rarely be seen during the classic operation. Bear in mind that a placenta previa death is usually one from postpartum hemorrhage. DeLee noted the placenta on the anterior wall in 42 of 67 cases. The fact that you have to cut through the placenta in a case of placenta previa need cause you no alarm, as the above statistics show this to be a common occurrence in classic operations. Again, you may incise the uterus a little higher to avoid the dilated sinuses near the bladder.

The mortality for the cervical cesarean done under local anesthesia where indicated in eclampsia cases has been about the same as that for the conservative treatment of eclampsia. It is particularly useful in the fulminating pre-eclampsia cases. Also, it is often a life saving procedure in cases of cardiac decompensation during pregnancy. May I burden you with a few statistics? Judging from the reports in the German literature, the cervical cesarean is the accepted one in Germany today. Even Williams in his sixth edition admitted its usefulness. An objection has been advanced that the operation requires longer time to perform than the classic. It does—but not enough to endanger a patient or her baby. Cesarean section infant mortality statistics as indicated by Plass' Iowa questionnaire

—8.7 per cent in 1938 operations—Winter's German statistics—9 per cent in 4450 operations—and Greenhill—4.5 per cent in 874 operations—tend to destroy any argument that a cesarean is a life saving procedure for the child. If working under local anesthesia you need not hurry anyway. Besides, it is generally assumed that when a baby is alive and in good condition at the beginning of an operation, a living baby will result. Taking all the comparative statistics into consideration from all clinics and published reports, the mortality of cervical cesarean has proved to be twice as good as for the classic operation. Also, one must consider the fact that many of the cervical operations have been done on frankly infected cases. Courtiss and Fisher report that out of 624 classics only 42 or 6.7 per cent had no elevation of temperature, while out of 376 cervicals 245 or 62.5 per cent had no elevation of temperature, even though four times as many cervical operations had a trial labor. The mortality in this series was almost five times as good for the cervical as for the classic operation.

The mortality throughout the country for cesarean section is getting better. We believe this is due to the adoption of the cervical cesarean. About four years ago, Dr. Wm. H. Halley of Denver and I gave up the classic operation. There have been no deaths among patients we have operated or seen in consultation during that time. Greenhill in 1930 reported 170 consecutive cervical operations which he operated for many serious indications, without a single death. At the present time there are twice as many classics being done as cervical operations. Even the severest critics of the operation laud it in infected cases and in cases where there is danger of infection. If an operation is admittedly so superior as to save the lives of women who are infected or who are in danger of infection, why then should it not be used to the exclusion of the classic operation in nearly all cases? There is no moot in the question, for those of us who do the cervical cesarean, that it will displace the classic operation.

Summary and Conclusions

1. We urge you to familiarize yourself with the technic of this operation and use it without reservation.

2. The advantages of the cervical cesarean over the classic operation have been enumerated.

3. The mortality as judged by comparative statistics in all published reports is two to one in favor of the cervical cesarean operation.

4. Are we not jeopardizing maternal life by failing to take advantage of the cervical cesarean?

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ABSTRACT OF DISCUSSION

Thomas Stoddard, M.D., Pueblo: Infections following labor are due, mostly, to incompetent accoucheurs—more particularly of midwives. I believe there are very few cases of infection following labor when waited upon by competent physicians.

The cesarean section as proposed by Dr. Whiteley cannot be done as rapidly as the other method. I can conceive of possible conditions that might demand such an operation, but where it is possible to do the classic cesarean section, I believe it can be done much more quickly and safely. If infection is already existing and a possible chance of delivering via natura or with forceps, I think that would be the better plan. To thus give an opportunity for hidden abscess in the post-cervical space is taking a chance that we would not take if we were doing the classic cesarean section.

C. T. Knuckey, M.D., Lamar: Foreign countries, especially Holland, have a very low mortality in obstetrics, but they do not count anything except what is absolutely due to the obstetrical procedure. In this country, if a woman happens to be pregnant and has influenza, a bad heart, tuberculosis, or kidney disease and dies, it all goes into our obstetric mortality. The reason for this is a self-interested campaign to discredit the medical profession. We are not only in the obstetric line but also in social insurance, State Medicine, and a great many others. Some reputable magazines have joined in this movement, unwittingly or otherwise. The Shepard-Towner Act instigated thousands of people in the United States to decry our

obstetrics. I think the American obstetrician is as good as any in the world. There is an irreducible minimum of mortality in obstetrics. The greatest gain in cutting down the obstetric mortality is in the education of the patient.

The figures in the White House Conference distinctly showed a very marked lowering of the mortality in those women who had made even one visit to the doctor prior to labor. A great many of the general practitioners see many patients for the first time when they are in active labor. A great deal of the mortality can be cut down by proper pre-natal care.

E. L. Harvey, M.D., Denver: I had occasion to look up the percentage of classical and low cervical sections that were done in Denver in 1932 and it is still 90 per cent classical and only 10 per cent low cervical, whereas in a great many of the larger obstetrical clinics and hospitals throughout the United States, the low cervical has practically supplanted the classical. It is true there is still a place for the classical, but when one considers that this operation can cut mortality in half, it is self-evident that it is a much superior procedure. I think one has only to see a few patients convalesce after the low cervical type to be quite converted to that type of cesarean section.

Merrill Jobe, M.D., Denver: About two weeks ago a young college student brought his wife to my office and asked me to take care of her delivery in future months. Unfortunately there was an article in "Time" on our table there which he read, purporting to show that the mortality rate was less in the private home than in the hospitals. I was against the wall because he showed me that article in "Time" and asked me to explain it. However, he very courteously said that he wanted his wife to go to the hospital. In returning the article to him I recalled the story we were all taught in early school about the beginning of asepsis in obstetrics, and to make sure I was correct I looked it up. As I remember, it was in 1853 that young Semmelweis was placed in charge of an obstetrical ward in Vienna in contrast to his older associate, and he observed that if they washed their hands in soap and water, the mortality rate was much lessened in his ward. He also observed that after the lunch hour, when the students and his older associates, came up from the dissecting room, that they didn't wash their hands. He then observed that the maternal mortality was from 10 to 13 per cent. That was in 1853, which wasn't very far back. When Semmelweis wrote his original paper he was tabooed by his older associates, the same as I think some men feel toward the lower cervical section.

I have had occasion to use the lower cervical section and I think Dr. Whiteley's paper is correct. There is only one condition in which I feel the classical is superior. That is in one which was mentioned, where speed is necessary, in premature separation of the placenta. However, in the hands of one who has done quite a few of the low cervical operations, we don't necessarily have to sacrifice speed, because it only takes a moment to refer the bladder and push it down.

Gerrit Heusinkveld, M.D., Denver: Part of the things said against us in the magazines and the daily press is perfectly true. Fortunately, only part. In the European countries, continental Europe, England, and Scotland, where they have those rigid courses for midwives, women work for twelve to eighteen months in the lying-in hospitals after their nurses' training has been completed; they are thoroughly drilled in the recognition of pathology and in the care of the pa-

tients, and when they get up against it they call the doctor. The doctor then has before him a patient who has been well treated so far and has not been neglected, and he has all the advantages that obtain in taking care of the pathological condition.

We have in our country here a group of women who call themselves midwives. They are in no sense midwives. They had three or four children themselves, they saw another baby born, so they go and take care of all their neighbors. The most ignorant class of women will presume to do things of that sort. They conduct a case until finally, after so many hours, they discover that the baby isn't born, and it doesn't take a particular amount of intelligence to see that, and we find a case that is infected, exhausted, has been neglected, and we have to do with it as best we may. No wonder our rate is worse than it is in these highly enlightened countries where they see enough of obstetrics and have enough respect for it and know that those women that shall take care of their sisters in childbirth shall be well trained and properly licensed!

I do not believe, gentlemen, that we can entirely get away from the situation of having midwives. But we need not fear the competition of a group of well-trained women who are expert in the practice of midwifery. In our own Kentucky Mountain districts and in the regions in the central East we are employing a lot of these women and they do uniformly good work. In our own state of Colorado, where there are counties as large as some of our eastern states, there is sometimes no physician who can cover the situation. Why shouldn't we have women trained in midwifery?

One thing relative to Dr. Beebe's paper: Dr. Beebe, you state that with operative interference your morbidity and fevers were more common. I think that is probably true—operative interference comes only after many hours of labor. The patient is more or less exhausted and with the exhaustion of the patient and of the uterus there is more tendency to hemorrhage and less resistance to infection.

Some day an operation somewhere between the low cervical and the so-called classical may be devised. I don't know that many men are doing the incision through the fundus any more. Most I have seen lately that do the so-called classical operation make an incision below the navel, generally make an incision down into the thin part of the uterus as far as they can handily make the incision.

Whether the spill of the liquor amnii is such a bad thing I wouldn't be too sure. One of our well-known biologic houses is selling liquor amnii by the eight ounce bottle to pour into abdomens to prevent adhesions.

Gerald B. Webb, M.D., Colorado Springs: I was talking to an otologist the other day and he read me a report of inherited deafness in infants which had been traced in some instances to the use of quinine in obstetrics in accelerating labor. I don't know whether any of you gentlemen ever met such a case.

Dr. Burkhard, Closing: The principal element in maternal mortality in this country is not to be charged up to midwives or altogether to interference. It has been pretty definitely recognized and calculated that we have here seven hundred thousand abortions per year. Put that down now beside the four thousand which statistics account for. There are two and a half million confinements. In the city the ratio is one abortion to

two and a half confinements. In the country it is one abortion to five confinements. That is where you get your mortality. In this state in the year 1932 we had two peculiar deaths charged up to puerperal mortality. One was poisoning by quinine taken for abortion, and one was attended by a midwife.

Here is another interesting fact about the classification. The International list classifies the deliberate or criminal abortion as a homicide. In our state it is classified as a puerperal sepsis. In 1932 we had 155 deaths accounted for by the Board of Health; three of those were not puerperal; they were not pregnant. That left 152. Thirty-seven of them were acknowledge criminal abortions. There were some sixty odd cases of sepsis, and of those a majority were due to abortions. They were camouflaged. We had good reason for questioning them and I only regret that time forbade my corresponding and tying them down definitely where they belonged. Taking these thirty-seven from 152 leaves us 115 instead of 155 as shown in the State Registrar's report. Put those where they belong. In that same year there were 90 homicides. Add 37 to it and it brings up the proportion and does not reflect much improvement in that particular phase of statistics. I regret that we couldn't go into this. The one thing I am denying is that there is any unusual or excessive fault on the part of the profession. We should not be held responsible for the criminal abortions.

Dr. Beebe, Closing: Regarding the matter of infections due to midwives, in the articles that I reviewed there were very few, as far as maternal deaths incidental to full term deliveries are concerned, but there were many associated with abortions. Midwives in this country play a very small part, comparatively speaking, in the number of births. If we ever get our maternal mortality to four per thousand births, I think it will be very good.

Regarding mercurochrome, I have no objection to the red color of it if it isn't substituted for asepsis. In other words, if we do all that we can as a matter of asepsis and then add some color to it, that's all right. But we mustn't substitute!

I feel that the quantity of infection has to do with the spread of it. In other words, a little infection would probably be handled by the peritoneum. That is my only reason for believing the amniotic fluid should be thoroughly aspirated out, for if it were septic, a large amount could induce peritonitis.

Dr. Whiteley, Closing: Replying to the first speaker who mentioned rapidity of operation, there isn't usually such a hurry about operating on a cesarean patient. If you are working under a local anesthesia, you do not have to hurry, and so far as it being a life-saving procedure for the child is concerned, infant mortality statistics from cesarean sections from all over the world show that it is not a life-saving procedure for the child.

From the quick operation with the continuous suture which that implies, a pretty bad scar results. That scar may rupture during subsequent labors.

Dr. Jobe mentioned that ablatio placentae often calls for hysterectomy. There a transverse low cervical incision is very advantageous. What Dr. Heusinkveld said about amniotic fluid is probably so, but remember that it comes in contact with the wound and thereby may become a means of introducing and incubating infection.

DIFFERENTIAL DIAGNOSIS OF LESIONS OF THE COLON*

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Familiarity with methods of approach is essential when attempting to solve diagnostic problems as they apply to the large bowel. Although the principles involved are quite simple, much confusion as regards the procedures to follow and their relative values still exists. For some unknown reason, the undergraduate departments of the medical schools in the past have sadly neglected the bowel, apparently relegating the care of individuals suffering from bowel disorders to the quack and the manufacturers of patent medicines and yeast who are more interested in the regular and prolonged use of their wares than they are in actually trying to get at the source of the difficulty.

In common with the rest of the gastro-intestinal tract, the colon is very prone to disorders of function, many of which are directly traceable to faulty habits, indiscretions in diet, emotional upsets, and prolonged nervous and mental strain. Likewise, symptoms of a diverse character referable to the colon not infrequently occur secondary to disease elsewhere. The value of a painstaking general survey, even when the bowel is the only organ of which the patient complains is, therefore, self-evident.

It must be appreciated at the outset that it is not uncommon to encounter difficulties in explaining symptoms referable to the bowel. This applies particularly to certain diarrheas. The bacteriologically minded physician gives vaccines and serum, the parasitologist gives anti-amebic drugs for an undiscovered ameba, the surgeon has one or more operations one of which is sure to cure, the allergist eliminates one or more foods or gives food extracts in increasing doses hypodermically, and the endocrinologist attempts to regulate glandular imbalance by substitution therapy. It must be said that, even with such a diverse and formidable array of therapeutic procedures, good results are not infrequently obtained.

Whether the explanations for these satisfactory results are correct is another matter. The truth is that, when our knowledge of physiology and pathologic physiology is more complete, some rational conception of these obscure cases will be forthcoming.

At the present state of our knowledge, it is possible to clarify the situation greatly by using every recognized means at our command to discover organic bowel disease before becoming hopelessly lost in disputed fields. Do not be satisfied until approved methods have been used to rule out the possible presence of an early cancer which, in all probability, can be dealt with satisfactorily. If, after an exhaustive examination, one is reasonably sure that organic disease is excluded, there is no harm in trying the various reasonable medical measures which have proved helpful in other cases.

Because of the fact that so often progressive organic disease of the colon, especially cancer, fails to reveal characteristic earmarks by ordinary clinical examinations, special methods of precision must practically always be used. The fact that patients with colonic disorders are successfully treated without their use is in a large measure due to the relative infrequency of organic disease and prevalence of symptoms due to temporary dysfunction from whatever cause which, in the ordinary course of events, rights itself. Only the experience of a few costly mistakes is necessary to make one realize the truth of these statements. Examine first; treat and operate afterwards.

There is no organ of the body more important than the colon wherein as accurate a diagnosis as possible should be made. It is hardly necessary to mention the fact that the failure to recognize cancer before complete obstruction, perforation, or metastases have taken place usually means death. The recognition of chronic ulcerative colitis prior to any contemplated surgical procedure in the peritoneal cavity is of the utmost importance, since any manipulation of the colon by the surgeon is apt to lead to peritonitis

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and death. Resection of a diverticulitis of the sigmoid under the mistaken diagnosis of cancer always carries a formidable mortality rate. The serious complications encountered in the long-standing unrecognized case of amebiasis are still more regrettable because of the brilliant results usually obtained by relatively simple medical measures early in the course of the disease. There is a great need for conservatism and sound practice in the management of patients with disorders of the colon. The colon probably more than any other organ has been the target of faddists both in and out of the profession.

The four most valuable special aids in the diagnosis of organic disease of the colon are: 1. Digital examination of the rectum. 2. Proctosigmoidoscopic visualization. 3. Roentgenologic examination of the colon by the barium enema. 4. Examination of the fresh warm stool. In the absence of a history of diarrhea, stool examinations are usually unnecessary. These procedures should be carried out in the order named except for the stool tests which should follow the proctoscopic and precede the x-ray examination. The adoption of a practical uniform routine of investigation will accomplish more toward improving diagnostic accuracy than everything else combined. Careful attention to details, especially that of proper preparation of the patient for proctoscopic and barium enema examinations, is essential if errors in interpretation are to be avoided. It is, of course, necessary to vary routine in certain individual cases. Drastic cathartics must naturally be avoided in preparing patients for these examinations in the presence of high grade obstruction or severe diarrhea. Other measures such as repeated irrigations in various positions and hot stupes, if intelligently employed, often serve the purpose well. It is rarely necessary to give barium by mouth in the diagnosis of lesions of the colon except possibly in disease of the ileocecal coil; even there, it is of doubtful value. Ingestion of barium in the presence of a partially obstructing lesion is distinctly dangerous and not infrequently precipitates complete obstruction or materially increases the risk of operation by increasing the grade

of obstruction. Barium tends to dry out and accumulate in large hard masses when it remains in the bowel any length of time. This tendency is very much greater when any degree of stenosis of the bowel exists. For this reason, I usually advise patients to take cleansing enemas even after the barium enema to avoid any danger of impaction. Ordinary roentgenograms of the abdomen without barium may be helpful in the diagnosis of obstruction of either the small or large bowel. The accumulation of gas proximal to the site of obstruction often serves to outline the bowel.

It is my purpose in this communication to emphasize the value of a systematized method of attacking colon problems and to point out the importance of making every effort to recognize organic disease. Unless one is acutely conscious of the protean nature of the clinical manifestations of various colonic lesions and is conversant with the fundamental methods of demonstrating them, very little can be accomplished by discussing the specific disease entities themselves.

By all odds, the most frequent and most important lesion encountered in the colon and rectum is carcinoma. Sarcoma and other types of malignancy are seen very rarely and cannot, as a rule, be distinguished from carcinoma except by tissue studies. Early recognition of cancer depends upon the early and thorough investigation of patients who complain of disturbed bowel function with or without the passage of blood, mucus or pus from the anus. The use of the expression "cancer age" by both the profession and laity has been responsible for numerous errors in diagnosis. Carcinomata of the colon and rectum may and do occur at almost any age. Impairment of general health such as weight loss and anemia are late occurrences in the course of the disease with the exception of the cecum and ascending colon. In this region, it is not uncommon for patients to exhibit a marked anemia with or without a palpable mass in the right lower quadrant with no gastro-intestinal symptoms whatever and little, if any, loss in weight. As a rule, carcinoma of the rectum and recto-sigmoid can be easily identified by digital ex-

amination. Those which do not feel characteristic or are very small can be positively identified with the proctoscope and biopsy. From a gross standpoint, there are two types of cancer encountered in the colon and rectum: the scirrhus, or napkin-ring type, which tends to become annular and obstruct early and cause very few other symptoms; and the fungoid type which tends to ulcerate and produce an irritative diarrhea with the passage of blood, mucus and pus, and obstructs only after it has reached a good size. The scirrhus type is found most often in the recto-sigmoid, sigmoid, descending colon, and splenic flexure; the fungoid type occurs in the rectum and the right half of the colon.

Carcinomata beyond the reach of the proctoscope must be discovered by means of the barium enema and roentgenologic studies. The purely scirrhus cancer produces a rather blunt smooth filling defect if the barium passes through. The barium enema may, however, by distending the normal bowel immediately below the lesion, cause a partial temporary intussusception. The lateral pressure of the enema will thereby narrow the already greatly reduced lumen of the lesion and impede further progress of the barium. This process of intussusception produces a characteristic roentgenologic picture. When the cancer is more of the fungoid type, a fairly localized irregular filling defect with sharp irregular margins is seen. In most instances, the filling defect of cancer is characteristic. Under the fluoroscope, there may be a mass corresponding to the filling defect.

Polyps, benign or malignant, single or multiple, and easily diagnosed by digital and protoscopic examination. As with cancer, the barium enema must be resorted to when they are above the reach of the proctoscope. There is great variation in symptomatology, but bleeding is the most common clinical manifestation. They are all potentially malignant. Fluoroscopic studies with abdominal palpation, observing the barium enema as it enters the colon often allows one to visualize round central filling defects which many times are moveable. Prior to the use of the combined air and barium technic of

Fisher and Weber it was often difficult to demonstrate polyps and polypoid lesions roentgenographically. This procedure has made it possible to visualize polyps in an eminently successful way. The tendency of polyps to be multiple and to occur in members of the same family should be borne in mind.

Benign tumors such as lipomata rarely occur as the cause of clinical symptoms. Size and the presence or absence of ulceration determine whether or not symptoms are produced. Pedunculated polyps or benign tumors by a process of traction may be the underlying cause of intussusception.

True colitis is usually accompanied by the passage of blood, mucus and pus in the stool. Patients, however, not infrequently fail to observe it. When the involvement is extensive, diarrhea almost always occurs. If the process is confined to the rectum or rectum and sigmoid the patient may pass numerous discharges of blood, pus and mucus and exhibit normal or constipated bowel action. Because of similarity of symptomatology the type of colitis must usually be determined by proctoscopic, x-ray and stool examinations. Since the institution of proper treatment is wholly dependent upon the variety of colitis, differentiation of type is essential. The three types of chronic organic colitis ordinarily encountered are: 1. Chronic ulcerative colitis of the type described by Logan and Buie due to the diplostreptococcus isolated by Bagen. 2. Colitis due to infestation with *Entameba histolytica*. 3. Tuberculous colitis. On rare occasions atypical inflammatory disease of the bowel, difficult to classify, is encountered. Enema tip ulcerations are not infrequently seen and should not be misinterpreted. Heavy metal poisoning and uremia are occasionally associated with intestinal ulceration. Ulceration and inflammation are seen in the segment of bowel proximal to long-standing obstructive lesions and at times with or following impactions especially in megalocolon. The so-called solitary ulcer is of rare occurrence.

In 95 per cent of cases the Bagen type of infection starts in the rectum and is easily recognized by proctoscopic examination.

The mucosa is granular and glazed and bleeds with slight trauma. General contraction of the bowel lumen begins early and often becomes marked with an associated thickening or obliteration of the rectal valves. The involvement above the reach of the proctoscope is usually easily demonstrated by the barium enema. Narrowing, foreshortening and haustral obliteration occurs in the chronic cases. In the acute cases deep ulcerations show up as jagged, irregular projections. Films after evacuation of the barium enema reveal a change in the mucosal markings. In over 70 per cent of cases the *Bargen diplococcus* can be isolated from the bowel wall or stool.

The discovery of the *Entameba histolytica* in the fresh warm stool is the essential finding in the diagnosis of amebic colitis. Repeated stool examinations on successive days may be required. The demonstration of amebic lesions of the colon by means of the proctoscope and x-ray is not always easy and doubt as to the actual presence of lesions often exists. Authorities, however, claim that they are always present. About 20 per cent of patients harboring *Entameba histolytica* reveal a specific type of ulceration by proctoscopic examination. The multiple punched out umbilicated ulcers most numerous about the edges of the valves of Houston are quite typical. They are often covered with white caps of mucus which are teeming with amebas. Characteristically the mucous membrane between the ulcers is quite normal. In exceptionally severe cases with secondary infection there may be diffuse involvement. Smears taken directly from the ulcers through the proctoscope may reveal the amebas. In a certain number of cases the barium enema demonstrates a patchy ulcerative process confined to or most intense in the cecum and ascending colon. Whenever proctoscopic and roentgen findings are those of amebic colitis, intense search for the *Entameba histolytica* should be made.

Tuberculous ulcers are rarely seen through the proctoscope. When present they resemble amebic ulcers although they are apt to be larger with purplish undermined edges and a necrotic base. They are always ac-

companied by demonstrable pulmonary lesions and are usually terminal. Biopsy may be of aid in their recognition. Since intestinal tuberculosis starts in the ileocecal coil and fails to notify us of its presence by characteristic symptomatology and physical findings, much depends upon what the roentgen ray can reveal. In a creditably high percentage of cases barium enema studies, supplemented at time by observations with the ingested meal, demonstrate a characteristic roentgenologic picture. Definite narrowing and irregularity of the cecum, ascending colon and ileum of varying degrees together with marked irritability, hypermotility and spasm are the outstanding roentgen manifestations of tuberculous ulceration in these regions.

Localized inflammatory tumors, or so-called granulomata, resemble carcinomata in their clinical and roentgenologic manifestations. They may be difficult if not impossible to differentiate from malignancy. They are usually one of three types: tuberculous, amebic, or non-specific. The demonstration of pulmonary tuberculosis, the finding of amebas in the stools, or the presence of inflammatory characteristics both local and general coupled with a more diffuse and less irregular filling defect with tapering termini by x-ray are of great aid in identifying the nature of these lesions.

Multiple diverticulae of the colon are frequently encountered after the age of 45 but rarely before 30. Fortunately they become involved by inflammatory disease in a relatively small number of instances. They produce no clinical symptoms unless they become inflamed. Unless roentgenologic studies are made, their existence is unknown. Diverticulae are of most frequent occurrence in the sigmoid and it is in this region that they may become inflamed. Diverticulitis elsewhere in the colon is extremely rare. Obesity and age definitely predispose to diverticulitis; indeed, age is more of a factor than it is in cancer. Repeated attacks of lower abdominal pain and tenderness with fever and leucocytosis constitute the chief clinical features. A tender fixed mass may be palpated by abdominal or bimanual examination. Obstructive

features are unusual but may occur. The proctoscope may reveal fixation of the sigmoid and the lumens of the diverticulae. The roentgen ray is of great value in demonstrating the presence of diverticulae as small extra-luminal shadows by the barium enema. It is doubtful however whether the roentgen ray can tell us whether they are the seat of inflammation in a very high percentage of cases. Nevertheless, the presence of spasm, irregularity, and narrowing or perhaps slight obstruction points toward diverticulitis. Abscess formation and perforation into neighboring organs especially the bladder, may occur. Sigmoidal carcinoma is the condition with which diverticulitis is frequently confused although it has been proved without any question or doubt that there is no etiologic relationship. This confusion extends to the operating room where, not infrequently, the surgeon is unable to differentiate even when he sees and feels the lesion. The clinical and roentgenologic features of diverticulitis and cancer are usually of more differential value than surgical exploration and should be relied upon more than they have in the past. In the absence of abscess formation, fistulation, or obstruction, diverticulitis is without any question a medical condition, whereas cancer of the sigmoid is just as definitely surgical. Conservatism should be the keynote if any doubt exists as to which lesion is present, either before or during operation, because of the very high risk of primary resection of a sigmoid the seat of diverticulitis.

Congenital malformations of the colon rarely offer difficulties in diagnosis. The clinical features of the obstipated, underdeveloped and undernourished, pot-bellied child with congenital megalocolon are characteristic. Minor degrees of or localized forms of megalocolon as well as incomplete rotation are easily discovered with the barium enema.

Summary

1. The importance and value of careful investigation of bowel complaints have been stressed.

2. A practical routine of examination to discover or exclude the presence of organic disease of the colon has been outlined.

3. The pertinent facts which serve to differentiate the more important organic lesions of the colon have been briefly considered.

DISCUSSION

Frank B. Stephenson, M.D. (Denver): In the field of gastro-intestinal x-ray diagnosis, the colon sometimes gives us the most trouble. It is possible to give a barium enema and fully distend the bowel to such an extent that lesions which may be present are covered by other portions of the bowel. We have especial difficulty in the region of the sigmoid and rectum, the coils of the bowel often overlying each other in such a way that one part cannot be distinguished from another, and lesions are thus easily hidden. This applies also to the splenic and hepatic flexures where a far advanced lesion may sometimes escape detection. Therefore we are accustomed to resort to every trick that we know to bring our oversights to a minimum. Turning the patient at different angles both in the fluoroscopic room and when making plates, is very valuable as Dr. Faust has pointed out. Giving an enema with an opaque medium that will adhere to the walls of the colon after evacuation, and then distending the colon with air, is sometimes helpful in showing small lesions. Stereoscopic plates enable us to determine their presence, and they may be seen, in the case of polyps, as little elevations. Often after the ordinary barium enema, if we are in doubt at all, we fluoroscope and make plates after evacuation to see how the bowel looks when it is partially empty. It is rare that a patient will entirely evacuate the colon following a barium enema.

Dr. Faust said that it is rarely necessary to give barium by the mouth. I believe I would like to take some issue with him on that point. The objection, I know, is the fact that the surgeon operating on these colons likes to express the colon contents which are retained above the lesion. It is claimed that barium is more difficult to express than ordinary fecal matter. We believe, however, that when petrolagar is included with the barium meal, it renders the colon as easily expressible as ordinary fecal matter. It is possible sometimes to determine the presence and location of lesions by this method, especially those causing stenosis or obstruction, which would not be discovered by the barium enema method. Furthermore when the enema is obstructed at a given point and the ingested meal is obstructed at about the same point, we have double assurance in taking the responsibility for the diagnosis.

T. Leon Howard, M.D. (Denver): In my opinion the big bowel is probably the fourth great focus of infection that the genito-urinary tract has to contend with. I don't know why Dr. Faust didn't mention the intestinal flora that we so often find in the urine. Of course if we find a streptococcus in the urinary tract, we certainly go to the teeth, tonsils, or frontal sinuses. A colon bacillus shouldn't inhabit the urine unless there is some reason for it. I have seen many cases in which the colon bacilli were loaded in the urine without any pus at all, yet those patients are coming to the general man and to the urologist for lesions referable to the genito-urinary tract.

I have had several cases in which you could catheterize both ureters and find the urine loaded with colon bacilli. You can treat those patients

forever with all kinds of antiseptics which do no good, apparently, yet if a patient had a streptococcus in there we'd look for a bad tooth or tonsil. Why aren't we looking for this lesion in the bowels?

Dr. Faust (Closing): Surgeons who do much intestinal work are very emphatic in their protest against the ingestion of barium by mouth if the patient's history is suggestive of an obstructive lesion of the colon. Experience has proved beyond any question or doubt that it is a hazardous practice.

Clinical and experimental data in relation to the problem of the colon as a focus of infection are so conflicting and uncertain that it is difficult to get a clear conception of the situation. Much of our information in this respect is based upon opinion and probable misconceptions. There is no doubt in my mind that the colon acts as a focus of infection in chronic ulcerative colitis and other conditions where actual inflammatory disease exists, but whether it acts as a focus when no lesion is present is an entirely different matter. An adequate explanation of why the colon bacillus, a normal inhabitant of the colon takes on pathogenic properties when it reaches the urinary tract in a relatively small number of instances has not been made. Regardless of the portal of entry, the blood stream, the lymphatics or directly through the urethra there is one thing that is certain, it is absolutely futile to expect to eliminate this organism from the intestinal canal by any method. The problem from the standpoint of the urinary tract must be approached from some other angle. So far as I know the colon bacillus produces no recognizable lesions in the colon.

CASE REPORTS

POLYMASTIA

LYMAN W. MASON, M.D.
DENVER

Polymastia, or supernumerary breasts, while not a rare condition, is however not common. Possibly one in every several hundred women exhibit it. These supernumerary breasts occur in more or less of a line from the axilla over the chest, abdomen, groin and rarely onto the thigh, the so-called mammary line, analogous to that along which the breasts occur in those animals in which polymastia is normal. Most of the supernumerary breasts occur on the chest or abdomen; less frequently they occur in the axilla. The majority of the swellings which occur in the axilla at the beginning of lactation, and which are frequently mistaken for a lymphadenopathy, are probably due to extensions of breast tissue from the normal breast along the pectoralis major

muscle into the axilla and are not true supernumerary breasts.

The case reported herewith of occurrence in the axilla is interesting because of the rather rare presence of a functioning nipple in this location, and another small opening just above it which was not readily visible, but from which milk could be expressed by pressure on the surrounding tumor mass.

The pigmentation about this rudimentary nipple is plainly noticeable in the photograph; a drop of milk can also be seen exuding from the opening. The other almost imperceptible opening is marked in the picture by a dab of mercurochrome. The tumor formed by the engorged supernumerary breast is evident. There was a swelling in the left axilla also, but no nipple or other ostium. There was a copious secretion from the right side (the one shown) for about three weeks, necessitating the wearing of something to absorb it. At the end of that time there occurred a rapid involution of the axillary tumors with complete subsidence of secretion, while the normal breasts continued to secrete copiously.

This was observed after the second baby of this patient. The same cycle had been noted after her first delivery and period of lactation. Both pregnancies and deliveries were entirely normal, and lactation was abundant in both.

I see no indication for the removal of

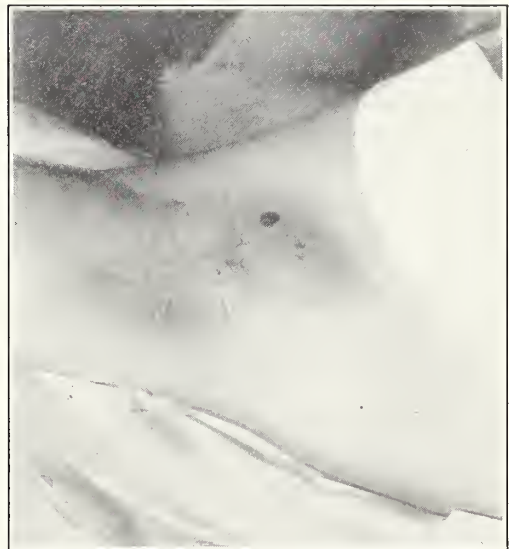


Fig. 1. Right axillary space showing supernumerary nipple. Note drop of milk at opening.

this tissue, if the patient prefers to endure the discomfort and annoyance of lactation from it for two or three weeks when she has a baby. Except during the beginning of lactation there is nothing palpable in the axillae and no evidence of glandular activity. Hilliard E. Miller states that the literature contains no instance of the development of a carcinoma from a supernumerary breast.

PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Decline in Tuberculosis Adds Year to Average Life

Almost an entire year has been added to the general average duration of life by America's successful battle against tuberculosis within the decade from 1920 to 1930, statisticians of the Metropolitan Life Insurance Company have found. That so much has been accomplished through attack on a single disease is considered to be "very remarkable and gratifying."

According to the mortality statistics of the recent census year, 1930, the curtailment of the average length of life due to tuberculosis was just over one year for white persons of either sex. In 1920, it was a little short of two years. Still another decade further back in time it was about three years.

The loss of potential years of life through a given cause depends not only on the degree of the mortality from that cause, but also on the age-period at which its effect is concentrated. In this report tuberculosis is in a particularly unfavorable position. Deaths from tuberculosis occur very largely among young persons or persons at the prime of life. As the result of this, although the death rate from tuberculosis has fortunately decreased in late years so far as to relegate this cause to the seventh rank among the principal causes of death, the number of years of life lost, on the average, is still a relatively important item.

Treating a Cold

There are several reasons why the medical profession does not treat colds, or rather treats only a small percentage of them. Fre-

quently patient and doctor alike think, "It is only a cold;" and yet colds cause an annual financial loss to the country of some twenty millions of dollars, so the statisticians say.

While most "cold" patients recover in a few days, the fact that many colds develop into something more serious does not affect the situation: It is still "only a cold."

The cost of professional care keeps some patients from seeking treatment. Mostly, however, it seems that professional advice seldom shortens the period of the attack. Generally, therefore, the professional treatment of colds is not satisfactory to either patient or physician. Of course, from the professional side, how seldom it is that a doctor can get full patient cooperation!

Patients must be taught to be more sensible and less "brave." One should never "fight a cold"—an expression that often means therapeutic inaction. We must treat it! Truly necessary nasal surgery is so self-evident that it needs no more than mention. —From "Clinical Medicine and Surgery," February, 1934.

Health in the National Recovery

Mothers have learned better how to feed and clothe their children and protect them against illness. Physicians have added to the care of the sick, immunizations protecting against typhoid and smallpox and diphtheria. The public, the taxpayer, the officers of government have supported the health services of county, city and state. While budgets have been reduced, and public health nurses dropped, while the full possibilities of public health services have been sadly crippled and in some places actually brought to an end by lack of appropriations, we have not forgotten our knowledge and we have continued to apply it individually when social resources have been withdrawn.

The year 1934 need not be an exception. We can, if we are determined, record another twelve months of better health. Education in right living costs little and is a great protection against loss. Neglect of disease robs not only the patient but the

whole family. For the sake of national recovery we must insist individually and collectively upon support of both public and private health agencies.

We must make it possible to say to our children in the years to come that health prospered in the U. S. A. not only during the down grade but throughout the struggle upward from a depression that tested the very structure of contemporary society.—Haven Emerson, M.D.

Science Records Major Advances in 1933

First known antidote for poisonous bichloride of mercury, formaldehyde-sulfoxylate, was discovered by Dr. S. M. Rosenthal, U. S. Public Health Service.

Protective "vaccination" against pneumonia similar to smallpox vaccination may be possible as a result of the discovery by Prof. Arthur F. Coca, Cornell University Medical College, that pneumonia attacks may be warded off by hypodermic injections of the toxin produced by the pneumococcus.

A widespread outbreak of amebic dysentery, traced to food handlers in two Chicago hotels, was reported in the fall; a number of fatalities due to mistaken diagnosis showed that physicians in the north need to be on the watch for this so-called tropical disease.

A movement to prevent danger to the public health resulting from unsanitary food handling was started in New York City by a committee of public health experts.

An epidemic of encephalitis, said to be the worst in the history of the United States, occurred in St. Louis and vicinity in late summer and early fall. A concerted attack by scientists of the vicinity, of the U. S. Army and U. S. Public Health Service and of various other institutions, including tests on convict volunteers, showed that the disease is undoubtedly due to a virus and is not carried by mosquitoes, that the disease can be transmitted to mice and that encephalitis patients develop immune bodies in their blood which give resistance to the disease.

Evidence strongly suggested that a rabbit tick is the agent that has carried Rocky Mountain spotted fever across the continent

was reported by Dr. R. R. Parker, U. S. Public Health Service.

With the admission of Texas to the death registration area, deaths are now recorded for the whole United States for the first time.—Science Service.

Public Health Service Makes Additional Findings on Rocky Mountain Spotted Fever

Until the year 1931, Rocky Mountain spotted fever was known to occur in but twelve states. In that year the U. S. Public Health Service reported the results of investigations, which showed that the disease occurred endemically in some of the states bordering on the Atlantic. Since then cases of spotted fever have been recognized in widely separated sections of the country, occurring in over thirty states.

During 1933, the Public Health Service reported findings which suggest that the disease may be endemic in various sections of the world. They have shown that Sao Paulo typhus of Brazil, a tick-borne disease, is identical with spotted fever, and also have presented evidence suggesting that Boutonneuse fever, a tick-borne disease of the Mediterranean littoral, is immunologically identical with spotted fever.

Although but three species of ticks, *D. andersoni*, *D. variabilis*, and the rabbit tick *Haemophysalis leporis-palustris*, have been found to contain, in nature, the virus of spotted fever, five additional species have been shown in the laboratory to be capable of transmitting the virus. It has also been shown that the virus will pass from one generation of these ticks to the next generation. As a result of this work it is now known that throughout the country there are ticks which are capable of transmitting the disease.

The demand for the spotted fever vaccine in the eastern section of the country has not been great, as but 1655 cubic centimeters, a quantity sufficient to immunize approximately four hundred individuals, has been sent out in answer to requests for the vaccine in the east.—Diplomate.

BOOK REVIEWS

Pathogenic Microorganisms, A Practical Manual for Students, Physicians, and Health Officers. By William Hallock Park, M.D., and Anna Wessels Williams, M.D. 10th Edition, Enlarged and Thoroughly Revised with 215 Engravings and 11 full sized page plates. Philadelphia: Lea and Febiger. 1933.

If the appearance of a text book in its 10th edition is adequate testimony of its success, then "Pathogenic Microorganisms" should be successful; it has the unquestioned advantage of authorship by two of America's veteran bacteriologists. Like previous editions, the tenth is presented in three parts, the first dealing with general microbiological history, classification, technic and immunity, the second with detailed descriptions of specific bacteria, molds, yeasts, viruses, and protozoa, and the third with problems of dairy, shellfish, and soil bacteriology, chemical disinfection and sterilization.

It is more valuable as a reference than as a textbook, and certain parts are too detailed for elementary instruction, particularly Part I with its numerous formulae for culture media many of which are of historical interest only and of little or no value in modern technology. And why waste space illustrating obsolete apparatus, such as the hot water funnel (p. 113), the upright autoclave (p. 115), and the safety burner and heat regulator for gas burning incubators (p. 145)? One notes likewise the continued emphasis upon obsolete methods of cultivating anaerobic bacteria and an apparent lack of familiarity with the well-defined procedures developed in this important field during the last decade.

In the field of immunology the hypothetical conceptions and terminology of Ehrlich are still emphasized for their historical interest, but the fact that most modern scholars in this field have long since given up the side chain theory as an explanation of immunity is not emphasized. This section is stronger on the practical side as would be expected from the long experience of the authors in public health problems of immunity.

It is quite apparent in "Pathogenic Microorganisms" that the authors have not yet found any solid footing in bacteriological nomenclature. The mischief wrought by Bergey's Manual of Determinative Bacteriology with its half-hearted endorsement (not adoption) by the Society of American Bacteriologists is evident here in the attempt to compromise between the ultrascientific "Neisseria" and the vulgar "meningococcus" and "gonococcus" in the continued reference to the Corynebacterium diphtheriae as the "diphtheria bacillus", in "B. (Escherichia) communis" for Bacterium coli, in "B. typhosus" and "B. dysenteriae" as species of the genus "Eberthella", in reference to "Bacillus pyocyaneus," "Bacillus influenzae" and "Bacillus subtilis" as if they were species of the same genus while the anaerobic bacilli are placed in a separate genus "Clostridium." These confusions which are common to several text books in bacteriology make the way for both students and teacher hard.

One is grateful for the numerous references and for the obvious attempt to bring the rapidly advancing problem of active immunization in diphtheria and scarlet fever up to date. The bacteriophage is discussed, but on the other hand no adequate conception is given of the large amount of

work done in the last few years on bacterial dissociation.

There are a few misprints, but none serious, and on the whole the book maker's art has been well exercised except that there is too much fine print, evidently to save space.

IVAN C. HALL.

Sex and Internal Secretions. A Survey of Recent Research. Edited by Edgar Allen, Ph.D. Professor of Anatomy and Dean, University of Missouri, School of Medicine, Columbia.

This is by no means a popular book on sex. The reader must have a moderate biological background, so that the involved technical terminology does not prove a serious handicap. Having this foundation this book, written by a group of the most outstanding research men on internal secretions concerned in reproduction, represents the best and most recent advances. Consequently, it is the last word in that field, especially in animal experimentation. In the practical application in man it is highly conservative before conclusions are drawn—so conservative, in fact, that one discerns the laboratory man throughout rather than the clinician.

ARNOLD MINNIG.

The Surgical Clinics of North America. Published Bi-monthly (Six Numbers a Year) Volume 13, Number 2. New York Number, April, 1933. Philadelphia and London: W. B. Saunders Company.

The April issue of the Surgical Clinics of North America contains several articles of particular interest to the obstetricians. The article by Dr. Edward F. Malloy in the use of Pernocton as an analgesic in obstetrics is of interest. An article by Dr. Burton J. Lee dealing with the significance in bleeding from the nipple is of interest and importance in dealing with tumor of the breast. Also Dr. Howard C. Taylor, Jr.'s report on chronic mastitis in association with gynecological disease is of practical interest in this very common condition.

The Surgical Clinics of North America. Published Bi-monthly (Six Numbers a Year), Volume 13, Number 3. Lahey Clinic Number, Boston, Massachusetts, June, 1933. Philadelphia and London: W. B. Saunders Company.

As usual the articles from Dr. Lahey's Clinic in Boston are very clear and concise and of much interest both to the surgeon and internist. Dr. Lahey's article dealing with Esophageal Diverticula will interest every surgeon. As usual his surgical principles are thoroughly founded on the embryology and anatomy of the structures. Dr. Lahey's very careful analysis in the procedures of choice in dealing with gastric and duodenal lesions are worthy of consideration. A similar analytic consideration of the operation of choice for carcinoma of the rectum by Richard B. Cattell should be carefully reviewed by the surgeon.

The Surgical Clinics of North America. Published Bi-monthly (Six Numbers a Year), Volume 13, Number 4. Mayo Clinic Number, August, 1933. Philadelphia and London: W. B. Saunders Company.

A review of 20 cases of Hypertrophic Stenosis of the Pylorus in Adults by E. Starr Judd and Harold L. Thompson holds unusual interest to the general surgeon. Dr. Charles W. Mayo's article dealing with Acute Intussusception in Children with analysis of the condition is worthy

of review. Of especial interest to the genito-urinary surgeon is Dr. Edmund H. Droegemueller's article dealing with Renal Tuberculosis.

G. E. CHELEY.

Diet in Sinus Infections and Colds. By Egon V. Ullman, M.D., formerly special lecturer for biology at the Oregon State College; instructor at the first medical clinic at the University of Vienna, Demonstrator at the Laryngological Clinic (Prof. Hajek) at the University of Vienna, assistant physician at the Otolaryngological Clinic (Prof. Neumann) at the University of Vienna, member of the Research Staff of the State Serum Institute of Austria. The Macmillan Company, 1933. 166 pages, price \$2.00

The book is obviously written for public consumption, and is in no sense a medical textbook. It seems to be based upon the assumption that most of the ills to which the upper respiratory tract is subject can be prevented or cured by use of the so-called alkaline diet. The reasoning is such that it would be expected to appeal to the average layman. Whether it would be acceptable to the thoughtful physician is extremely doubtful.

Like most books on the troubled subject of diet it contains some constructive suggestions, but these are so mixed with muddled and unscientifically arbitrary pronouncements that it was impossible for the reviewer to make anything out of them. Just another dietetic panacea.

HARRY L. BAUM.

The Story of Childbirth. By Dr. Palmer Findley. New York: Doubleday, Doran & Company, Incorporated. Garden City, 1933.

This is a book which is interesting to both the layman and the practitioner. The first portion deals with superstitions of earlier times and of primitive people—many of these beliefs we find present among mothers of today. To collect this historical information required an immense amount of research, which was truly a worthwhile task.

The chapter, "Women the Divinely Appointed Accoucheurs," deals with the history of the midwife, the part she has played in the past and a discussion of her usefulness today. There is an imperative need for her in our industrial centers and in sparsely settled districts. In Europe she is well trained and supervised, and it is our obligation to see that she is properly instructed and controlled. This we are not doing.

"The Slaughter of the Innocents," very ably deals with abortions, a practice older than civilization, and brings out the appalling fact that today it is estimated that out of 1,000,000 human beings that are conceived, between 300,000 to 400,000 perish in the first six months of intra-uterine life. The increase of abortions throughout the world has been due less to laxity of morals than to underlying economic conditions.

Regarding anesthetics in labor, the author states that "It is no unmixed blessing." We look with horror upon the days when women were denied relief from pain. Today obstetrics is lagging behind surgery, but to safeguard the interests of all concerned the obstetrician must administer the anesthetic with that caution which the occasion demands, even at the expense of suffering.

Under the chapter "Martyred Mothers," occur the statistics so familiar to the obstetrician, in

which our maternal and fetal death rates are compared with those of other countries. Fully 40 per cent of our maternal deaths are chargeable to infection. The first and most important cause of maternal death is abortion; the second is interference with the course of pregnancy with drugs and operative measures. Forceps deliveries have contributed largely to fetal injuries and risks to the mother. Caesarean operations are too frequent. The demand for painless labors and the injudicious use of anesthetics take a toll of death.

"The reasonable and sane position to assume is to regard childbirth not as an event so natural and devoid of danger as to be regarded with indifference, nor yet so abnormal as to place it in the category of a surgical specialty. Rather should it be regarded as a process of such intrinsic importance as to call for unceasing vigilance, for masterly inactivity matched with timely, thought-controlled interference."

The subject of birth control is so active at the present time and so important that the chapter on this subject should be appreciated. "From a biological standpoint we need have little concern for the lowest type of human beings. The upper middle class constitutes a large group—college graduates, professional groups, skilled mechanics, successful business men and farmers. It is to this group that we are indebted for the progress our country has made in the past and it argues poorly for the future when we reflect that in this group, families are so rapidly diminishing. It requires four children to insure the perpetuity of a family and we have less than an average of two children in the families of the upper middle class."

Child spacing is discussed and advocated. The viewpoint of medical science in matters pertaining to birth control is in marked variance with the position of the Roman Catholic Church and of some of the Protestant denominations. The medical profession is not concerned with religious dogmas. Its business is the care of the body, and it is vitally concerned with the physical and social well-being of the child-bearing woman.

The book ends with a consideration of the modern maternity hospital. The book is exceedingly well written; the author knows his facts and presents them logically and clearly. He is in accord with the best obstetrical thought of the country, yet it is simply presented and makes interesting reading for the laity.

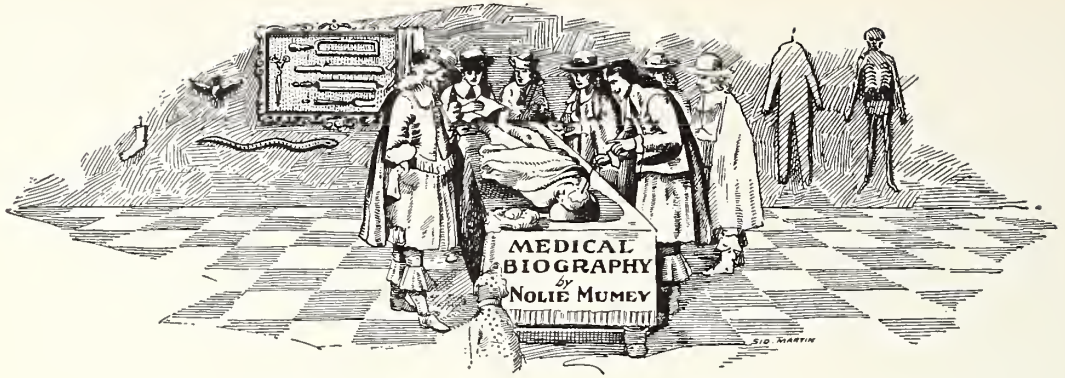
CLARENCE B. INGRAHAM.

An Introduction to Dermatology. By Richard L. Sutton, M.D., Sc.D., LL.D., F.R.S. (Edin). Professor of Diseases of the Skin, University of Kansas School of Medicine and Richard L. Sutton, A.M., M.D. Visiting Dermatologist to the Kansas City General Hospital. With 183 illustrations. St. Louis: The C. V. Mosby Company. 1932. 565 pages, price \$5.00.

This new and concise volume fully measures up to the well-known qualifications of the authors. Every physician who is called upon to treat diseases of the skin needs this book, valuable alike to the general practitioner and the undergraduate student.

It is a clear presentation of the work, both of the established principles, and the newer concepts of dermatologic therapy. It is recommended to the profession as a book which will be found both interesting and useful.

P. G. LINGENFELTER.



MICHAEL SERVETUS

The Discoverer of the Pulmonary Circulation

The death of the Spanish martyr, Michael Servetus, was a blot on the history of Christianity and a distinct loss to medical science. He was born in 1509 at Villanueva de Sigana in the province of Huesca. Several accounts of his life give the date of birth as 1511, and the place as Tudelle in Navarre, but the former date is believed to be correct.

Servetus came from a respected family who were in good circumstances. He received his preliminary education at a monastery in Spain. Being a precocious youth he mastered the elements of Latin, Greek, and Hebrew at the age of fourteen. He was sent to the University of Toulouse where he remained for three years to study canon and civil law. It was here that he became interested in reading the Bible. In his investigation of the Scriptures he found many things at variance with the commonly believed doctrines of religion. No doubt these newly discovered ideas influenced him to give up the study of law and to undertake the interpretation of his newer views of Christianity.

Servetus was also known as Hispanice Servedo, Michael Servetus Villanovanus, Michael de Villeneuve, and Reves, the latter word being formed by the transposition of the name Servedo or Servetus with the omission of the termination.

Servetus began his career of reformer in the southern part of France where he met with a great deal of opposition. He decided to go to Germany where the cause of the

Reformation had made some progress. Traveling by way of Lyons and Geneva to Basil, he had many conferences with Oecolampadius. There he left a manuscript with Conrad Rouss, a bookseller, against the Trinity, who sent it to Haguenau. Servetus immediately left for Strasburg to interview Bucer and Capito, two celebrated reformers.

This manuscript was published, as a book, in a small octavo volume of 119 pages, appearing without the printer's name. The author's name, however, was on the title page with the following: *De Trinitatis erroribus libri septem per Michaelem Servetum, alias Reves ab Arragonia Hispanum Anno. M.D. XXXI.* In translation: (Seven books concerning the errors about a Trinity by Michael Servetus, alias Reves, Spaniard of Arragon in the year 1531.) The place where the book was printed was not stated in the text, but without doubt it came from Haguenau in Alsco.

Servetus was about twenty years old when he published this work. It was his first book and it shocked Swiss reformers to such an extent that bitter comment came from some of his supposed friends. Even Bucer, who was kind to the young reformer, said the author should be disembowelled for such views. Servetus undertook to show in his book that the words, Jesus, Christ, and Son of God, denote only a man; this he tried to prove by quoting several passages from the Scriptures. He said the three divine persons were merely imaginary, metaphysical gods, etc. His writing was confusing and his interpretations vague and hard to understand.

(To be Continued)



Secretarial Notes and Comment



Edited by Harvey T. Sethman, Executive Secretary

Watch Those Annual Session Plans

IT is interesting the way the medical profession of Colorado returned the questionnaires sent out by the Committee on Scientific Work. Physicians proverbially too busy to pay any attention to routine paper procedures returned five or six times as many questionnaires for the number sent out as the Literary Digest expects from its questionnaires sent to people in all walks of life.

The Program Committee of the State Medical Society is impressed with the seriousness of being responsible for three days out of the life of three or four hundred busy physicians. With such responsibility it should leave no stone unturned to make this time profitable and enjoyable. Whenever it became sorely pressed to make a decision governing the program policy for the forthcoming annual meeting it turned to the compiled statistics gained from the suggestions of the members themselves. More than 140 medical subjects were suggested for the program. The committee was guided by the number of requests submitted for a given subject. The subject of endocrinology led all the rest. Obstetrics was a close "runner-up." Cancer was well represented in the questionnaires. Many wished to hear about the common cold. The gastro-intestinal tract was evidently of interest to many and some felt that fractures would be an appropriate subject for study. Most of the difficult problems which arose in selection of papers were solved by filled questionnaires from the very physicians who are to listen and take part at the meetings.

The committee was surprised at the large number of men who desired a stag smoker. This has been arranged and Colorado Medicine need not tell you that especial features of rare spice are in store for the many who have verbally signified their intention of being present. Not only local "talent" will be used for entertainment but—well, enough of this, you will see for yourself. Watch these columns in next month's issue for more inside information about the smoker and scientific program. Also watch for advance notices concerning innovations in this year's exhibits.

Fee-Splitting Law

THE majority of physicians are unaware that an anti-fee-splitting law exists in this state. Not only is the practice forbidden by our Code of Ethics, but it is punishable by law. Apparently incidental to the depression, some physicians have excused the offense by various interpretations and misinterpretations of it. At the suggestion of a member of the State Board of Medical Examiners, and in order that there may be no excuse for future misinterpretations, the law is here reprinted in full with an explanation by a competent attorney, as follows:

AN ACT

Senate Bill No. 185. By Senator Knauss.

TO PROHIBIT THE DIVISION OF FEES BY PHYSICIANS, SURGEONS, CHIROPRACTORS, MIDWIVES AND CHIROPODISTS, OR THE PAYMENT OF COMPENSATION BY ANY OF THEM FOR PROCURING EMPLOYMENT IN A PROFESSIONAL CAPACITY.

Be It Enacted by the General Assembly of The State of Colorado:

Section 1. If any person holding a license to practice medicine, chiropractic, midwifery or chiropody issued by the State Board of Medical Examiners of the State of Colorado, shall divide any fee or compensation received or charged for services rendered by him as a physician, surgeon, chiropractor, midwife or chiropodist, or shall agree to divide any such fee or compensation with any person whomsoever as pay or compensation to such other person either (1) for sending or bringing any patient or other person to such physician, surgeon, chiropractor, midwife or chiropodist for examination or treatment; or, (2) for recommending such physician, surgeon, chiropractor, midwife or chiropodist to any person; or, (3) for being instrumental in any manner in causing any person to employ such physician, surgeon, chiropractor, midwife or chiropodist in his professional capacity; or if any person holding a license to practice medicine, chiropractic, midwifery or chiropody issued by the State Board of Medical Examiners of the State of Colorado shall, either directly or indirectly, pay or compensate or agree to pay or compensate, any person whomsoever, either (1) for sending or bringing any patient or other person to such physician, surgeon, chiropractor, midwife or chiropodist for examination or treatment; or (2) for recommending such physician, surgeon, chiropractor, midwife or chiropodist to any person; or (3) for being instrumental in any manner in causing any person to employ such physician, surgeon, chiropractor, midwife or chiropodist in his professional capacity, or if any person holding a license to practice medicine, chiropractic, midwifery or chiropody issued by the State Board of Medical Examiners of the State of Colorado, shall make a joint or lump or gross charge or present a bill or request a pay-

ment for a joint or lump or gross account for services rendered by him as a physician, surgeon, chiropractor, midwife or chiropodist or otherwise or shall authorize any person to make such a joint or lump or gross charge, present such a joint or lump or gross bill or request such a joint or lump or gross payment, without itemizing the amount charged or requested for the services rendered by each physician, surgeon, chiropractor, midwife or chiropodist whose services are included in such joint or lump or gross charge or bill or payment requested, such physician, surgeon, chiropractor, midwife or chiropodist shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars (\$25.00) or more than two hundred and fifty dollars (\$250.00), or by imprisonment in the county jail for not more than thirty (30) days, or by both such fine and such imprisonment.

Section 2. It is hereby declared to be unlawful for any person to receive, either directly or indirectly, any pay or compensation given or paid in violation of the foregoing section of this statute, and any person who receives any such pay or compensation shall be punished in the same manner and to the same extent as is provided in the foregoing section of this act for the person giving or paying such pay or compensation.

Section 3. The State Board of Medical Examiners is hereby authorized and empowered, after a hearing held as in other cases, to revoke the license of any physician, surgeon, chiropractor, midwife or chiropodist licensed to practice in this State, who shall violate any of the above and foregoing provisions of this statute, either by paying or agreeing to pay to any other person any portion of any fee hereinabove prohibited or paying or agreeing to pay to any other person any compensation hereinabove prohibited or by receiving any portion of any fee or by receiving any compensation in violation of this act; and it shall not be necessary that any physician, surgeon, chiropractor, midwife or chiropodist shall have been tried on a criminal charge before said board may proceed to try him for any violation of this act, nor shall an acquittal on a criminal charge deprive the board of power and authority to try such physician, surgeon, chiropractor, midwife or chiropodist upon such charge and revoke his license if he be found guilty by said board.

Section 4. It is hereby made the duty of the State Board of Medical Examiners to aid the District Attorneys of the State in the enforcement of this act and all fines collected under this act shall be paid over to the Secretary-Treasurer of the State Board of Medical Examiners and placed in the fund of said board.

Section 5. If any physician, surgeon, chiropractor, midwife, or chiropodist shall in violation of this act, divide or agree to divide any fee or compensation received by him for professional services rendered in his professional capacity with any person whomsoever, the person who has paid such fee or compensation to such physician, surgeon, chiropractor, midwife or chiropodist may recover the amount unlawfully paid out, or agreed to be paid out by such physician, surgeon, chiropractor, midwife or chiropodist from either the physician, surgeon, chiropractor, midwife or chiropodist who pays or agrees to pay the same or from the person to whom the same has actually been unlawfully paid by an action to be instituted within two years from the date upon which such

fee or compensation has been unlawfully divided or agreed to be divided.

Section 6. It is hereby declared that this act is necessary for the immediate preservation of the public peace, health and safety.

Section 7. In the opinion of the General Assembly an emergency exists and, therefore, this act shall take effect and be in full force from and after its passage.

JAMES A. PULLIAM,
President of the Senate.
BOON BEST,

Speaker of the House of Representatives.

JULIUS C. GUNTER,
Governor of the State of Colorado.

INTERPRETATION OF THE FEE-SPLITTING LAW

The statement given below has been prepared by a well-known lawyer, and seeks to clarify to the medical mind the purport of the law concerning fee splitting recently enacted for the state of Colorado.

The following general explanation of the "fee-splitting bill" passed by the last General Assembly is confined to the application of the bill to physicians and surgeons, its application to chiropractors and others being ignored. The fundamental act prohibited is the division of a fee by a physician or surgeon with any other physician or surgeon as compensation for referring a patient to the one dividing the fee. The payment of a commission is equivalent to the division of a fee.

To prevent the indirect accomplishment of the unlawful division of a fee by the presenting of a joint bill in the name of two or more physicians or surgeons, the proceeds of which is divided between them in a proportion unknown to the patient, it is further required that when two or more physicians are employed on the same case they must either render separate bills, each for the services rendered by himself, or they may render a joint bill in which the services rendered by each are separated.

Under the circumstances last mentioned, it will be found better to render separate statements, unless the physicians rendering the bill are general partners. If they are in a general partnership, it is proper to render a joint bill, no matter whether the services were rendered by one or more of the partners, but if the bill includes charges for services rendered by two or more of the partners, the charge made for services rendered by each should be separated in the bill. This is not because there is anything inherently wrong in presenting a bill for a lump amount under such circumstances, which lump amount is divided between the partners in accordance with their partnership agreement, but merely because such condition was not in the mind of the draftsman at the time the act was written, and its wording requires such separation.

The act does not interfere with the dividing of the net earnings of a partnership business by general partners, but does forbid the forming of a special partnership of the treatment of a specific case as a means of circumventing the law. Neither does it forbid the employment of an assistant on a salary and does not forbid the employer to retain all of the fee charged for services rendered by the assistant so employed. As to whether or not it requires that a bill rendered by an employer for services rendered by a salaried assistant should be separately itemized, separating the

charge made for services by the assistant from the charge made for services rendered by the employer himself, there is room for a difference of opinion. All question will be avoided by separating the charges, but there is nothing inherently wrong in rendering a bill for a lump charge under such circumstances and probably no public officer would think of complaining of such practice.

Another case not free from doubt is where a general assistant is employed on a commission. Such a case is not objectionable on the ground that either the employer or the assistant receives a commission out of the services rendered by the other without the patient's knowledge as the patient engages only the employer without any intervention on the part of the assistant and does not have any direct contractual relation with the assistant; but the prohibited division of fees might be so easily concealed by the ostensible employment of a general assistant on a commission, if that were allowed, when in fact the commission is paid for referring a patient by the ostensible employer to the ostensible assistant, that itemized statements for the services rendered by the employer and by the assistant should be made under such circumstances or the assistant should be placed on a salary.

MEDICAL SOCIETIES

BOULDER COUNTY

The regular monthly meeting of the Boulder County Medical Society was held February 8 at the Williams Cafe in Longmont. A symposium on "Exophthalmic Goiter" was presented by members of the Society. Dr. J. D. Bartholomew discussed the etiology and diagnosis, Dr. J. A. Gillaspie discussed the pathology, Dr. H. A. Alexander spoke on the management, and Dr. C. D. Bonham reviewed the complications. Dinner preceded the meeting.

Dr. Cuthbert Powell of Denver was the guest speaker at the March meeting of the society held at the Boulderado Hotel, March 8. Dr. Powell gave an interesting talk on "The Value of X-Ray Diagnosis in Obstetrics."

MARGARET L. JOHNSON,
Secretary.

CROWLEY COUNTY

On February 26 the Crowley County Medical Society met at the office of Dr. Desmond in Ordway. Dr. G. M. Baker of Rocky Ford and Dr. W. S. Bartholomew of Manzanola were the principal speakers. Dr. Baker gave a talk on "Injuries to the Shoulder Joint and Their Treatment." Dr. Bartholomew spoke on the "Uses of Radium." Two clinical cases were present with old injuries to the joints.

The regular March meeting of the Society was held in Dr. Desmond's office March 14. Drs. J. S. Norman and George Unfug of Pueblo were the guest speakers. Dr. Norman presented a motion picture of "Diseased Boney Structures." Dr. Unfug discussed the "Classification of Bone Pathology" with reference to x-ray. Two cases with bad elbow joints were present and the value of modern surgery was clearly brought out.

J. A. HIPP,
Secretary.

DENVER COUNTY

The first March meeting was devoted largely to

a business session. Drs. Arthur Philip Damerow, John Cunningham Mendenhall, and Edward Joseph Delehanty were elected to membership, and two new applications for membership were presented. Dr. B. B. Jaffa reported that 120 physicians so far have attended the demonstration courses in immunization, and he made a plea for all others to attend. A number of other matters of business were considered, including the discussion of a proposed amendment to the by-laws concerning the re-election of delinquent members. This amendment will be acted upon at the May business meeting. Dr. Severance Burrage presented the scientific program, an illustrated talk on "Microbial Fingerprints—Their Relation to Respiratory Disease," which was afterward discussed by Drs. Ivan Hall, Stiles, Stahl, Blickensderfer and Miel.

The Historical Section of the Society had charge of the second meeting, March 20. Dr. A. J. Markley, chairman of the section, presided. The speakers were Dr. Gerald B. Webb, Colorado Springs, President of the Colorado State Medical Society, and Dr. James J. Waring. Both presented scholarly illustrated papers. Dr. Webb on "A Brief Outline of the History of Tuberculosis," and Dr. Waring on "Salient Points in the History of Artificial Pneumothorax." The two papers together made an evening which will long be remembered by those members fortunate enough to have been present.

At the March 20 meeting Drs. Charles J. Stettheimer and Morris Ray Gottesfeld were elected to membership.

O. S. PHILPOTT,
Secretary.

TO HONOR DR. ROBERT LEVY

A complimentary dinner for Dr. Robert Levy on the occasion of his Golden Jubilee in the practice of medicine will be held at the Cosmopolitan Hotel Wednesday evening, April 4. Ladies are cordially invited. This notice is inserted in Colorado Medicine in order that friends of Dr. Levy who reside outside of Denver may know that they are invited to attend. Tickets at \$1.50 per plate may be procured from Dr. O. S. Philpott, Secretary of the Denver County Medical Society. Following the dinner a portrait of Dr. Levy will be presented to the County Society with an appropriate ceremony.

PHI RHO SIGMA LECTURE

Dr. Paul Hanzlik of Stanford University will give an address entitled "Novel Antitoxic and Protective Action of Dyes" at the University of Colorado School of Medicine, April 16, at 8:15 p. m. This is the first annual Phi Rho Sigma Memorial Lecture sponsored by the local chapter of the fraternity in remembrance of the deceased alumni of the chapter. In this lecture Dr. Hanzlik will discuss the actions of methylene blue, a number of the colloidal and the antiseptic dyes, and dinitrophenol. All members of the Medical Society are cordially invited.

E. H. HINDS,
President.

EL PASO COUNTY

The March meeting of the El Paso County Medical Society was held March 14 at the Day Nursery. A Symposium on Cancer of the Breast was presented by Dr. H. S. Finney, Surgeon; Dr. K. D. A. Allen, Radiologist, and Dr. E. I. Dobos, Pathologist.

CARL S. GYDESEN,
Secretary.

HUERFANO COUNTY

The Huerfano County Medical Society met at the office of Dr. S. J. Lamme in Walsenburg on February 20 to elect officers for 1934.

J. R. FOWLER,
Secretary.

* * *

LARIMER COUNTY

Dr. Daniel R. Higbee of Denver was the guest speaker at the regular meeting of the Larimer County Medical Society held March 7 at the Way Side Inn in Berthoud. Dr. Higbee delivered a very interesting talk on the "Relationship of Focal Infection to Pyelo-nephritis."

LAWRENCE D. DICKEY,
Secretary.

* * *

MESA COUNTY

The regular meeting of the Mesa County Medical Society was held February 20 at the La Courte Hotel in Grand Junction. Dr. Donald M. Maxwell of Grand Junction gave a talk on "The Use of Endocrines in the Treatment of Gynecological Conditions." Dr. Frank J. McDonough of Grand Junction presented a paper on "Abdominal Diagnosis in Children."

FRANK J. McDONOUGH,
Secretary.

* * *

PUEBLO COUNTY

The first March meeting of the Pueblo County Medical Society was held March 6 in the Congress Hotel. Dr. L. L. Ward gave an interesting talk on "Digitalis."

The second March meeting, held March 20 at the Congress Hotel, was devoted to a discussion of the F. E. R. A. and Rules and Regulations No. 7. The Society concurred in the recommendations of the Economic Committee to refuse to care for cases under the existing provisions as set forth in Rules and Regulations No. 7.

J. ROSENBLOOM,
Secretary.

Obituary

Seymour D. Van Meter

Our Society lost, on February 27, one of its most beloved and widely known members. Dr. Van Meter had for months been resigned to the ravages of a lingering illness. He had full command of his keen intellect until the last and in full knowledge of his destiny consigned his body to postmortem examination. As throughout his useful life, no sacrifice was too great for the benefit of medical science.

Dr. Van Meter was born in Oakville, Texas, in 1865. His medical education was taken in the University of Pennsylvania from which he was graduated in 1889. Following internship in the Presbyterian Hospital, Philadelphia, he married and came to Denver. He was active on the surgical staff at Denver General for twenty-five years. The greatest part of his private work was done in St. Luke's Hospital, though he was an active staff member of Mercy, National Jewish, and Children's Hospitals. Dr. Van Meter was President of the Denver County Medical Society in 1926.

The American Association for the Study of Goiter, at its annual conference at Memphis last May, elected him its first life member. Such a resolution constituted a recognition of his unceasing work since the organization's inception. He was its presiding officer for one year and on its Council for several years. Further recognition was tendered him as Vice President of the International Conference on Goiter at Berne in 1927. Manuscripts on goiter were attracted from all over the world in response to the prize award instituted by Dr. Van Meter.

Had not ill health prevented, Dr. Van Meter would have delivered America's invitation for the Third International Goiter Conference to the Second Conference in Berne last August. It is, however, undoubtedly due to his efforts that the Conference will come to America in 1937.

Colleagues, with many loyal followers in Colorado and adjoining states, extend sympathy to the survivors: Mrs. Van Meter, Dr. Virginia C. Van Meter, Mrs. Robert Packard, and the younger daughter, Jane.

William J. Baird

Dr. William J. Baird died February 2 of pernicious anemia at his home in Boulder.

Dr. Baird was in many respects a unique character in the medical profession of Colorado. Few men had as broad a knowledge of medicine and of medical men, not only of the present day, but of the past. He was known amongst his friends as a walking encyclopedia of medicine. It was particularly true of him that he either knew a thing or knew where the information concerning it could be found. His fund of general information was also extraordinary. He could tell off-hand the name of the president of any university or college, of standing, in America and usually tell something of note about them. He was one of the most rapid of readers. He could read the average book in an evening and discuss it intelligently when he had finished. He would also go through the heaviest text book on medicine in two or three days and give information wherein the author differed from others on any essential point.

Despite all this knowledge he was not widely known, since he was a modest man and seldom took part in large medical gatherings or wrote on medical topics. However, he did abstract the German medical journals for Colorado Medicine for a number of years.

He was born on a farm in Southern Alabama in 1861, spent his boyhood in that region, spent one year at the medical department of the University of Alabama and then went to Baltimore, where he was graduated in 1881. He practiced in Birmingham for several years, then went to Johns Hopkins for a year of postgraduate study, and then to the University of Chicago for another year.

In 1893 he moved to Boulder, taught pathology in the University Medical School for a year and then engaged in private practice. In 1900 he went to Vienna, where he studied for two years, returning to his practice in Boulder in 1902 and continued there until his death. He had been a member of the Boulder County and Colorado State Medical Societies continuously since 1897. He was an extraordinarily patriotic citizen and did more than anyone else toward the beautification of his home town.

O. M. G.

WOMAN'S AUXILIARY

The Physician's Benevolent Fund

What a wonderful thought for the future provision of your very own less fortunate ones!

To you doctors who are in favor of this idea, to you who give so generously of your time and energy to charity outside of the profession: Why not begin thinking about your own?

Tell all of your friends about it. Perhaps, you have a bachelor friend who wishes to make a provision in his will for just such a philanthropy.

At any rate, your Auxiliary is hoping that the germ of this idea may spread rapidly and may prove to be a real blessing to many of our less fortunate ones in the future.

• MIRA SCOTT (MRS. LORENZ W.) FRANK.

HYGEIA

Do you as a physician know what your official "laity" journal is telling the public? A glance through Hygeia each month will be a revelation to many who have hitherto been unaware of the kind of educational program presented.

It would seem especially appropriate to keep in touch with the articles giving information in your line of work, to see whether you approve or disapprove of the way in which they are written. It might be that you would be glad of the opportunity to refer a patient to an article of particular interest to him.

Many patients will be grateful to you for bringing to their notice a magazine so valuable in the home.

MRS. RALPH W. DANIELSON,
Hygeia Chairman.

Politics

"The medical profession of this city (and of every city, town and hamlet in the United States) has proved in the last three years that it numbers in its ranks the best citizens, because in fact physicians individually and as a group have done the most in welfare and public health work for their communities. Who then are more qualified than physicians to assist in procuring better government? We can no longer sit supinely by, waiting for the mysterious red light to turn to a better color. We must realize we have been seeing only a mirage—there is no 'Stop' signal to keep us from political considera-

tions. We must become convinced of the importance of our civic responsibility. We must do our part to try and make for better government—now!"—A. W. Slain, M.D., President, Wayne County Medical Society.

The American Medical Association publishes a small pamphlet outlining the principles of medical ethics. It should have a place on every physician's desk, perhaps even on the table of the waiting room for information to the laity. Be smart. Look about you. Analyze every successful physician you know. Why is he successful? (Please distinguish between financial and professional success.) Why is he loved and respected by his patients and by his fellow-doctors? Because he is a hard, conscientious worker, because he has developed his native ability, small or large though it may be, to its optimum advantage, and, finally equally important, knowingly or not, because he lives and conducts himself in accordance with the Golden Rule, nothing more nor less than our Code of Medical Ethics.—Indiana State Medical Association.

Conflicting Medical Testimony

Expert medical testimony given in law courts has a direct relation to the respect and esteem which is popularly credited to the medical profession. A comment by a judge both reveals and forms public opinion. A recent case before the Federal Court in New York City involved a judgment and criticism of not only the defendant at the bar, but also of two medical experts whose testimony was so contradictory that the judge was quoted as saying, "Their opinion is entitled to no consideration and I will give it none. I don't accept the experts' testimony. They don't appeal to me as reasonable."—The Journal of The Medical Society of New Jersey.

A scientist from the Pasteur Institute of Paris is at present in Bombay collecting five thousand cobras for the extraction of one kilogram of venom, which will be sent to Paris for further experiments.—Journal of Ayurveda, Calcutta, No. 33.

COLORADO STATE MEDICAL SOCIETY

Officers, 1933-1934

President: Gerald B. Webb, Colorado Springs.

President-elect: N. A. Madler, Greeley.

Vice Presidents: First, Frank E. Rogers, Denver; Second, A. G. Taylor, Grand Junction; Third, C. E. Sidwell, Longmont; Fourth, Ward C. Fenton, Rocky Ford.

Constitutional Secretary: John S. Bouslog, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 537 Republic Building, Denver. Telephone, KEystone 0870.

Delegates to American Medical Association: Senior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs.

Councillors:	Term Expires
District No. 1 F. W. Lockwood, Fort Morgan	1936
District No. 2 Ella A. Mead, Greeley	1936
District No. 3 George P. Lingenfelter, Denver	1936
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Chaffee County—First Tuesday of each month; secretary, C. Rex Fuller, Salida.

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Crowley County—Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

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EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Congratulations

THE Officers of the Wyoming State Medical Society congratulate the members of the Albany County Medical Society for their recent reorganization. They are a fine group of fellows and we hope they will take an active interest in the State Society and in their local meetings.

Especially is it true that in any university city there are gathered the cream of the younger generation, and these students form their opinions of the medical profession by the contacts they make with it during their years at college. These young people have great respect for organization and for national affiliation and so the more active the local Society is the greater its influence with the student body. The parents of these young men and women are equally interested in the high standing of the medical profession. It is a relief to them to know that there is at hand adequate medical care and hospitalization. Again we congratulate the members of our profession at Laramie.



Shortage of Tick Vaccine

THE announcement from the U. S. Public Health Laboratory at Hamilton, Montana, that there will be a very limited supply of tick vaccine this year has been received. A word of explanation ought to be made because of the urgent demand that is being made by the ranchers and farmers of Wyoming.

About two years ago an appropriation was voted by Congress and approved by the President for an enlargement of the govern-

ment plant at Hamilton, Montana. However, no construction work was started until the fall of 1933. When you consider that it is necessary to hatch and rear these ticks by the thousands and that a great many of them inherit from their mothers the deadly germ of tick fever, it is evident that the greatest care must be used to prevent their escape. During this reconstruction period it was impossible to carry on the production as before. The result is a shortage of this serum. Coupled with an exceptionally early and warm spring the ticks are showing in greater numbers than usual.

People are becoming convinced of the value of this treatment and probably every doctor in Wyoming has had to refuse to vaccinate because he did not have enough serum to keep his patients supplied.

The latest word from Hamilton is that they are doing everything they can to push production of the serum which will be distributed fairly as it becomes available. The medical men of Wyoming should explain the above condition to their patients, as the fault does not lie with the men in charge at Hamilton who are making this serum. It has been due entirely to governmental red tape. We know that the Surgeon General's office realizes the importance of the production of this vaccine and is doing everything that can be done to give us larger and better service. We medical men of the West realize that until some discovery is made to do away with the ticks they will continue to increase and spread over vast areas carrying not only tick fever, but several other diseases. Personally we believe the Hamilton Laboratory should be increased to five times

the original size. There is only one place in the world where this serum is made and yet is supplied to poor and rich alike. Money can't buy what isn't to be had.

E. W.

There are still a few Doctors who have not sent in their 1934 dues to the Secretary. Are your dues paid?

WYOMING NEWS NOTES

At a meeting February 9, 1934, of the Albany County Medical Society the following officers were elected: Dr. Carson E. Hunt, President; Dr. Emery DeKay, Vice President, and Dr. L. A. Williams, Secretary-Treasurer.

Dr. Hugo L. Lucic, who has been with Drs. Strader and Beck in Cheyenne for the past seven years, is now a member of the firm of Strader, Beck, and Lucic.

Dr. W. H. Roberts of Sheridan returned from a trip to Florida Sunday, March 25, and has resumed his practice. He reports a very enjoyable vacation in the Southland.

Health and Beauty

Someone had estimated that the regular customers of the "beauty" industry in the United States number over 20,000,000 women, or five times as many as the total number of men enrolled under the American flag during the World War. Not all the four million men smelt powder, but every one of the twenty million women face it without flinching. The procession passing in and out of the beauty parlors spends more than half a billion dollars a year, we are told, or more than one and a half million dollars a day. We are further informed that this is more than was spent last year on automobile and truck bodies, although the connection is not quite clear.

What our statistical friend fails to mention is that if these women realized the beauty that health brings, some of the millions of dollars now spent in beauty parlors might go, with better results, for healing the big and little illnesses that dim the eye, line the

face, droop the erect figure, and play havoc generally with good looks.

Every doctor can tell of beauty that has been brought back by restored health. Yet the big parade of women chasing beauty passes the doctor's office by, and pours a flood of gold into the purses of the beauticians. If the truth could only be implanted in woman's mind that there is no beauty like good health, the physicians would have a truly golden opportunity to improve the health and looks of the nation.—New York State Journal of Medicine.

Wasting the Doctor's Time

Two classes of patients waste the physician's valuable time. One is made up largely of the fair and fragile sex; the other of the strong, silent, masculine persuasion. The time wasters in the first class are the ones filled with imaginary aches and pains and run to the doctor every few days, seemingly to get material for conversation at the bridge club. The continual discussion of operations and symptoms when ladies meet was once described by a wag as an "organ recital." Reputations of local doctors are made and unmade at such meetings, and it takes a brave physician to tell a garrulous patient that nothing is wrong with her but imagination. Her little rapier would be busy at the next bridge meeting. But he emits a mental sigh when he sees her enter his office door.

The other class are exactly the opposite. They are the men who "never give in" to an illness—until it is too late to do anything. They are "too busy to see a doctor till past help. Even if friends persuade them to take medical advice, they pooh-pooh it, refuse to take any medicine, or go to a hospital, until it is almost time for the undertaker. "Never took a drop of medicine in my life," they say proudly. "and I'm not going to begin now!" Then the doctor is blamed for the result. With both classes, his best efforts are wasted, and he must often wonder why the two, the doctor-crazy and the doctor-shy, could not strike an average and gain sense and health at the same time.—New York State Journal of Medicine.

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Special Notice to Members of the Colorado Hospital Association.

There will be a meeting of the Colorado Hospital Association on the afternoon of April 13. This special meeting has been arranged to take advantage of the visiting speakers of national reputation who will be in Denver on this date. Nathaniel W. Faxson, Superintendent of the Strong Memorial Hospital of Rochester, New York, and now President of the American Hospital Association, will review the activities of the joint committees of the American, Protestant, and Catholic Hospital Associations now working in Washington and will speak of the results that they have accomplished there and suggest future problems which their experience there has brought to mind.

Miss Shirley Titus, Professor of Nursing Education and Dean of Vanderbilt University School of Nursing, will talk on the "Conquest of the Frontier." She will describe the changes in nursing and nursing education which must be anticipated because of the social changes which are now taking place.

The meeting will be held at the Cosmopolitan Hotel at 2:00 p. m.



Casualty List

THE official directory of the American Medical Association states that approximately five hundred hospitals have in the last three years been closed, merged, or dropped from their list. The American Hospital Association estimates that in the last three years four hundred hospitals have closed their doors. Most of these have, of course, been small ones which have no doubt been operating at a loss even in good times,

but have been doing a worthwhile service to their communities. We regret this loss, and hope that since the tide of the depression has turned, there will be no additions to this casualty list. Compared with the large percentage of failures in other lines of industry, the hospitals have made a very creditable showing.

The report of the American Medical Association shows that three hundred eighty new hospitals have been added to the list. This is a surprisingly large number considering the economic situation. It does not mean that three hundred eighty new hospitals have been opened during this period, but it does mean that this number of hospitals have improved their standards sufficiently to merit the approval of the American Medical Association.



Turnover Among Hospital Administrators

THE American Medical Association has pointed out that there has been a 25 per cent change in the personnel of superintendents or medical directors of the institutions listed in their directory. Such a large turnover is not conducive to good hospital administration. It is an indication of one of the following things: (1) That the individuals appointed to these positions have not been qualified or properly trained. (2) That the life of a hospital administrator is difficult, and therefore his tenure of office short. (3) That conditions in hospitals are of such an adverse nature that capable executives do not choose to stay in the field a long period of time.

Let us hope that, whatever the cause, conditions will be improved so that there will be less turnover among administrators in this field in the future.

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Ward Rates

HOSPITALS in the past established low rates in their wards in an attempt to make their services available to the sick poor of their communities. These rates when established were not based on the scientific cost of the care given, but were merely contributions on the part of the hospitals to the welfare of the communities. It was hoped that the loss sustained in caring for these ward patients at the low rates could be made up through community contributions or through the profits realized on the charges made to private room patients which were above the cost per patient day. Some hospitals fortunate enough to have endowment funds hoped to take care of these differences out of them.

Unfortunately the patients who have occupied or paid for ward beds have not felt that they were receiving part charity. It has not been the purpose of the hospitals to humiliate them by emphasizing that fact. Nevertheless, with the advent of industry into medicine, such rates have been used by groups organized for profit, to the detriment of this system. In some cases these industrial agencies have dictated prices even lower than the established ward rates. The natural and inevitable result has been an increase in the cost to the patient of the hospital's services, because if the hospital is to continue in operation and must operate on the income from patients, the private patient will have to make up the deficit incurred in the furnishing of ward care at rates below cost.

This abuse is one that the hospitals must unite in correcting, as private charity, endowment trusts, or receipts from patients should not have to bear this burden.

Saint Mark's Hospital in Salt Lake City has recently adopted the policy of refusing to furnish to insurance companies copies or briefs of the patients' histories and progress while in the hospital. This move was caused by the imposition on the hospital by the insurance companies for information regarding these cases. This practice has been

growing more and more during the last five years.

We shall watch the Utah experiment with interest.

The editor noted on March eighth that three persons died on that day en route to Denver hospitals. All these individuals had delayed hospitalization too long. This circumstance is one of the effects of the depression. We recall the many instances during the last few months in which patients have been brought to the hospital in a hopeless condition because they have delayed in their decision to incur hospital expenses until too late for any help to be given. Earlier hospitalization in many instances might have saved the patients.

COOPERATION BETWEEN THE NURSE AND DIETITIAN

MABLE HUMPHREY, R.N.
DENVER

The definition of cooperation, given in the dictionary, is the act of working together for the same end. The Superintendent would say, "Please get together—work this thing out and try to get along peaceably." In most hospitals the past fifteen years, there has been a state of war between nurses and dietitians. The reason for this constant war is mostly with older graduate nurses or the graduate who finished training before 1918. These nurses learned to cook at home before entering nurses, training or, as some might say, they had a natural instinct for cooking. Some schools did not have trained dietitians before the war, for during that time the dietitian came into the private hospital. We will say the large training school has for the past ten years tried to employ the best trained hospital dietitian available.

Why do we have trouble with the nurse; is she right or wrong? You might say, "Why does she worry, it is less trouble?" Because the nurse is willing to do anything for a patient, she not only wants to give her good care, but also to keep her patient happy. Food as well as health in most cases means

*Directress of nursing, St. Luke's Hospital, Denver.

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said that probably fifty per cent of these deaths are preventable. I should go further and say that if we could eliminate rickets practically one hundred per cent of those deaths could be prevented. The deformities of the bones that occur in early infancy are responsible for the deformed pelvis of the mothers who die in childbirth."

(Wynne, S. W., Commissioner of Health, New York City, "Certified Milk," Oct.-Nov., 1933).

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a great deal toward happiness. One nurse said, "I like to fix the trays I serve with just a little personal touch; I know what my patient wants." It isn't really much, but the dietitian said, "That is ridiculous; you just baby your patient." I know that the nurse who served these good trays may have taken food in the kitchens from other patients and the students' trays often looked very meager. If the head nurse was not there constantly, she left the outside lettuce leaves for the other patients and she never thought of putting it back in the cooler so it would be crisp for others.

Jessie Conrad said, "Good cooking is a moral agent." By good cooking I mean the conscientious preparation of the simple food of every day life, not the more or less skillful concoction of idle feast and rare dishes. Conscientious cookery is an enemy of gluttony. The trained delicacy of the palate, like a cultivated delicacy of sentiment, stands in the way of unseemly excesses. The decency of our life is for a great part a matter of good taste, of correct appreciation of what is fine in simplicity. The ultimate influence of conscientious cooking by rendering easy the process of digestion, promotes the serenity of mind, the graciousness of thought, and that indulgent view of our neighbors' failings which is the only genuine form of optimism.

Now, may I say a word about the food that the nurses themselves eat. I wonder sometimes how the dietitians really enjoy the food they serve. All hospitals I think buy the best food it is possible to buy. The chef cooks the meat until you would never recognize it, then adds all kinds of peppers or dressing to change the taste. Vegetables are cooked to pieces or half raw. I sometimes wonder if creamed dishes are served because they go farther in a serving. Last but not least, why serve potatoes, hominy, and pudding on one menu?

Most nurses, whether on private duty, institutional or public health work, are dependent upon their basic training course for their knowledge of foods and nutrition. The student nurse is dependent upon the dietitian for one of the most vital parts of her professional education. It is unfortunate

that the latter is often handicapped in teaching the student nurse because of lack of time for personal contact with the patient. The nurse and dietitian are expected to be informed on matters pertaining to diet for normal individuals in all walks of life.

What can be done to bring about a closer cooperation of the nursing and dietetic department? This question is important since the lack of cooperation between the dietitians and nurses in some hospitals is a distinct handicap to the service that the patients should receive. Both departments now play an important part in therapeutics, yet each is dependent upon the other in curing the sick. Unless the right food, properly chosen and well prepared, is delivered to the nurse, her other services will be of little avail to the patient. On the other hand, the dietitian is at the mercy of the nurse in the matter of serving food directly to the patient, and no matter how perfect the diet, it will be of no account unless the nurse carries out the orders of the dietitian quickly and precisely.

As I have stated before, before the advent of the dietitian to the hospital and the development of the central tray service, the preparation of trays was in the hands of the nurse who had to do the best she could with what little knowledge of dietetics she possessed, to prepare and serve the food to patients requiring special diets. Does the dietitian lose sight of the fact that the nurse is in contact with the patient and the dietitian should never lose sight of the fact that the nurse can help her with the so-called fussy patient? The nurse tells the dietitian the patient wants one egg and one piece of toast and she puts on the tray the eggs and toast, but not the right amount. If the dietitian could only hear the patient say to the Supervisor, "I only want what I ordered and that extra piece of toast was wasted; it was too large a helping and I could not eat my breakfast." Or, perhaps the patient is overweight and knows she should diet. If her helpings are too small, so that she is unable to leave a little, and she can say, "I never ate all the food on my tray, Doctor," she is unhappy and feels she has been forced to diet. An overweight patient is hard to deal with unless tactfully handled when ill because they have just as



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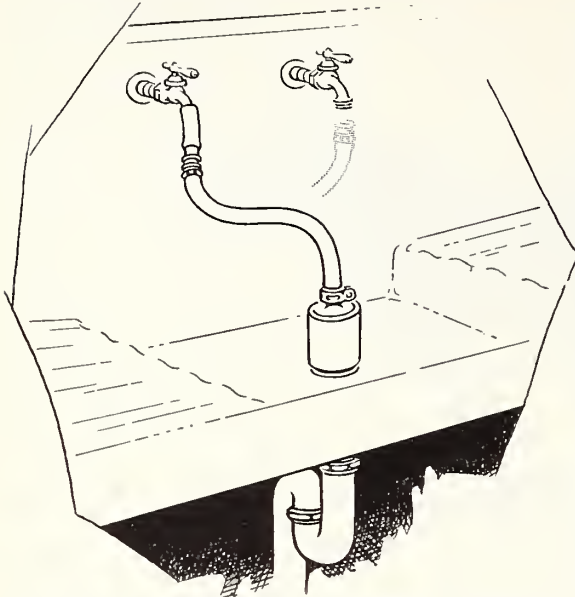
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much pain as a thin person, but need more sympathy, for the nurse may show that they are hard to turn and handle. Yes, this sounds ridiculous, but it happens.

As with any system in institutional life, there is bound to arise at times misunderstandings and friction between members of the two departments in carrying on the duties that are so closely bound together. Looking back into history, we see the causes of existing difficulties between the two departments. During the pioneer days of nursing, the nurse was forced to cover more ground than she could do, if the work was to be well done. Something had to go undone, and the serving of food was the first duty to let slip. The nurse naturally turned her immediate attention toward the dressing of wounds, administering medicine and the personal care of patients. Tray service became second unless a special nurse came on the case and although the trays were perhaps served hotter, food cooked better, the food was no good, for it was re-warmed or too much fried meat was served.

But, when science in her further strides called for more and more specialized diets, with better food service, the nurse found herself facing situations with which she was unable to cope. Scientists then suggested training people for this work alone and dietitians and the profession of nutrition came into existence as an important and integral part of Hospital Administration.

The nurse gladly turned to what was attractive to her, but later realized that she had lost an important part of her work and adjustments had to be made by her. These changes have not been accomplished without some friction. For instance, no dietitian likes to have her trays worked over by special nurses if the food is not hot or properly served. Take it back to the one who is in command, do not talk about the dietitian and try to fix the food by re-heating, let the dietitian take the situation over and correct the mistake. Would the nurse like the dietitian to question her method of making beds.

As the scope of her work has broadened, the nurse's interest has grown away from the trays of the patient toward the medical and surgical aspect of her work, and the dietitian has taken up this work. But the

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dietitian must never lose sight of the fact that the patient is not part of the mechanical apparatus of the kitchen, but a human being.

Nurses and dietitians must work out the daily routine of life with one purpose in mind—service to humanity. If it were not for the patient, there would be no nurses or dietitians.

Let us see the dietitian more often in our staff meetings, as they are certainly part of the teaching staff.

IMMATERIA MEDICA

Hobo: "Boss, will you give me a dime for a sandwich?"

Gent: "Let's see the sandwich."

* * *

The young bride sadly said, "Men are too mean for anything."

"What's the trouble now?" asked her best friend.

"Why, I asked Jack for the car today, and he said that I should be content with the splendid carriage that nature gave me."

* * *

To get the best results, bridge luncheons should be served before the game. Eating with people you aren't speaking to hardly promotes good digestion.

* * *

In a crowded street car sat a very thin lady greatly discomfited by the pressure of an extremely fat lady who sat next.

Turning to her neighbor, the thin lady remarked, "They really should charge by weight on these cars."

Fat lady: "But if they did, dearie, they couldn't afford to stop for some people."

* * *

He had retired from business in order to devote himself to golf, but he was sorry he had made the change too late. One day, after a very bad round, he said to his caddie, "I'd move heaven and earth to play the game properly." "Aw, weel," said the caddie, "ye've only heaven to tackle now."

* * *

Sam—"That doctor isn't much good or he wouldn't keep you here in this climate to convalesce, he'd send you to California."

Jim—"He certainly is a good doctor and what's more, he's smart—I haven't paid him yet."

* * *

Fond Mother—"I hope my little darling has been as good as gold all day."

Nurse—"No, ma'am, he went off the gold standard about tea time."

* * *

"That's a small engine for such a big car, isn't it?"

"Oh, it's small, all right. You see, it smoked a lot when it was young."

* * *

"Why did you break your engagement to Tom?"

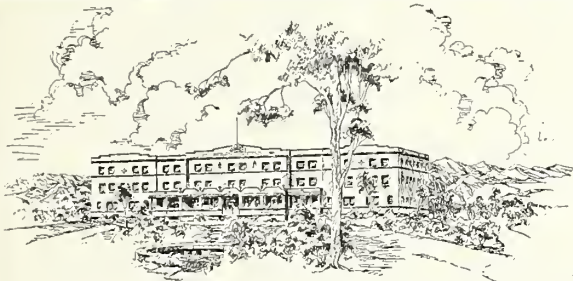
"He deceived me. He told me he was a liver and kidney specialist, and I found out that he only worked in a butcher shop."

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A wise man asks you a question to learn some-
thing. A fool asks you questions to start an
argument.—Florida Times-Union.

* * *

DOCTORIN'

I've been feelin' kinda poorly,
For the last day or so.
My Martly kept a pesterin'
And coixin' me to go
Down to see the family doctor.
So at last I did give in,
Just to find that he was visitin'
In the country with his kin.
Miss Luella, his assistant
Says, "Come in and have a seat,
Doctor Williams from the clinic
Is a-doctorin' this week."
In about a half a minute
This young doctor called me in,
And he started in a-poundin'
From my knees clear to my chin,
He stuck a needle in my arm
And filled a tube with blood,
He didn't seem to mind a bit
Just like 'twas so much mud.
He wrapped a tube around my arm
And pumped it full of air,
I wondered what was comin' next
And hung on to my chair.
He had me close my eyes, then says,
"Now stick your tongue way out."
He asked a lot of questions:
Did I ever have the gout,
Or if my family was insane
Or had consumption bad,
He wrote down all the answers
On a funny lookin' pad.
And then he went out of the room
Came back a-lookin' wise.
Says he, "My man, your trouble
Is all comin' from your eyes."
Says I, "Doc, you're just crazy,
Or don't know doctorin'—
'Cause old Doc Jones has treated me
Long years for this same thing.
I just say, 'Doc, I got them cramps'.
And what to give he knows;
He goes into that room in back
And fixes up a dose
Of powder and I take it down.
But old Doc never tries
To make me think my belly ache
Is comin' from my eyes."

—WOLCOTT EVANS.

* * *

Patient—"My wife tells me I talk in my sleep,
doctor. What should I do?"

Doctor—"Nothing that you shouldn't."

* * *

First Negro: "What fo' dat doctah comin' outa
youah house?"

Second Negro: "Ah dunno, but Ah think Ah's
got an inkling."

* * *

One of the golfers was very much in favor of
the new eight-inch cups—provided, of course, they
were at the nineteenth hole.

* * *

"My wife is suffering untold agony."

"I am sorry, what is the matter with her?"

"She has an inflamed throat and can not talk
about it."

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EDITORIAL NOTES AND COMMENT

Antitoxic and Preventive Action of Dyes

AN exceptional opportunity for hearing one of our most widely known pharmacologists was offered the medical profession at the University of Colorado School of Medicine and Hospitals on April 16. Doctor Paul Hanzlik, Professor of Pharmacology at Leland Stanford University, addressed his audience on Novel Antitoxic and Preventive Action of Dyes. This was the first annual memorial address sponsored by Phi Rho Sigma medical fraternity in honor of its deceased members.

The study of dyes, of which many are little understood chemically, constitutes a fascinating field. Some 1900 pertinent experiments have been performed in Dr. Hanzlik's laboratory. The dyes have been studied from two angles—their physical qualities and their chemical or metabolic properties. A few striking examples of the inherent attributes of dyes were described.

The Russian, Petro, fifteen years ago injected frogs with one per cent congo red and found that the animals could not then be killed by an otherwise surely fatal dose of curare. In fact, they suffered no ill effects. Other dyes gave similar results. Likewise frog legs paralyzed with curare regained their excitability after perfusion with a 1 to 2000 solution of congo red. The perfusate was found to contain the curare. The same dye prevented strychnine poisoning in mice. We recall that one effect of B. botulinus toxin is a curare action, namely, a paralysis of the nerve endings in the volun-

tary muscles. Experiments proved that the effects of this toxin on laboratory animals were prevented by dye administration.

The dyes giving this prevention were all colloidal, in contradistinction to the crystalloids. Similar protection resulted in the animals against diphtheria and tetanus toxins. In the latter, however, results were negative after the toxin had entered the spinal cord. This is explained by the fact that colloids do not penetrate the central nervous system. Congo red and many other colloidal dyes will protect serum against heat coagulation. Mercuric chloride and serum will not precipitate in the presence of congo red. The same obtains with acriflavine and fluorescein. Addition of salt to these mixtures results in precipitation. It is for these reasons that the dyes were used in dextrose instead of normal saline solution. Six per cent dextrose solution is isotonic and miscible.

Mercurochrome and acriflavine solutions intravenously in cases of septicemia have wrought variable results. They work through a protective action on the tissues rather than by a direct antiseptic effect on the organisms. In other words, they compete with toxins in affinity for certain tissues—acting physically as a protective blanket. Dr. Hanzlik believes that the chemical principle of antiseptics has been overemphasized; their physical properties warrant more attention. This might open up a vast question: What is an antiseptic? It is obvious that the prophylactic is immensely more important and promising than the curative phase of dye therapy.

Methylene blue as an antidote for cyanide

poisoning was first used thirteen years ago. A laboratory animal may be completely protected against any effect of a surely fatal dose of cyanide by the intravenous injection of two c.c. of a one per cent solution of methylene blue ten minutes before administration of the poison. Fifty c.c. of the same solution has repeatedly revived and saved human beings who have taken enough cyanide to kill a score of men. Methylene blue acts as a catalyzer for the low respiratory activities of mammalian red blood corpuscles, thus aiding restoration of their normal physiological state. Cyanide forms cyanmethemoglobin by combining with methemoglobin—rather than combining directly with hemoglobin. Sodium nitrite is capable of producing methemoglobin to a greater degree than the cyanide; however, the dye is preferred because of the blood pressure decline which follows nitrite administration. Distilled water or a 1.8 per cent sodium sulphate solution is preferable to normal saline as a vehicle for the dye. Similarity of the ions inhibits formation of sediment.

Dinitrophenol is an indicator which gives gradations of yellow in acid solutions. It produces pyrexia in animals, increases respiration, and produces death with heat rigor. In the human being it increases the basal metabolic rate in doses less than those which will cause temperature elevation. Through burning of carbohydrates and fat, it causes reduction of body weight. We have noticed several cases of fatal poisoning from this drug reported in recent literature. Such consequences have followed its injudicious and unsupervised use. Dinitrophenol is actually less toxic than many commonly used drugs. The dose is 100 to 300 milligrams (or 3 mg. per kilo) under careful direction of a physician. It does not form methemoglobin and is therefore not an antidote for cyanide.

Methylene blue is not indicated in any condition where the efficiency of the hemoglobin is reduced, as in carbon monoxide poisoning. Most authorities claim it is a synergist, not an antidote, in such cases. Unfortunately, some journals, this one among the rest, reported cases of apparent benefit from such therapy. It may actually

have been responsible for fatalities which would otherwise not have occurred. Cyanide interferes with the oxidative ferment of the tissues, and thus inhibits the ability of the tissues to utilize oxygen, whereas asphyxia from carbon monoxide results from deficiency of oxygen in the blood. As stated above, methylene blue converts hemoglobin into methemoglobin which combines with cyanide. Thus cyanide is withdrawn from the blood and tissues as cyanmethemoglobin and is not allowed to remain free to act as a poison on the tissue ferment. Conversion of hemoglobin into methemoglobin, as in carbon monoxide poisoning, further reduces oxygen-carrying power and aggravates the already existing anoxemia. The cases reported in the lay press from some of the general hospitals, where benefit seemed apparent, had probably already eliminated most of the carbon monoxide and got well in spite of the methylene blue. Henderson and Haggard feel that inhalation of oxygen with 7 to 10 per cent carbon dioxide is the treatment of choice in carbon monoxide poisoning.

Dr. Hanzlik is enthusiastic in his predictions that the future in dye therapy is practically unbounded. It is possible that it may ultimately equal and in some instances supersede the use of our best specific drugs, sera, and antitoxins in prophylactic and therapeutic usefulness.



Just What Does F.E.R.A. Pay For, Medically?

RELIEF officials apparently delight in seeing their names in the daily press, and misleading interviews of late have raised false hopes throughout the Colorado medical profession that the Relief Administration was about to pay doctors for all the care they are giving to families who are on direct relief. We hate to dash such hopes into the dust, but the medical profession wants facts, wants to know just what sort of cases the F.E.R.A. will handle.

Just as we were about to write on the subject, there came from the forceful pen of our Wyoming Editor an analysis of the situation in that state. His analysis applies perfectly

to Colorado, and should be read by every Colorado physician. We refer to "F.E.R.A.—An Analysis from the Medical View-point," in this month's Wyoming Section.

The question of whether the F.E.R.A. will pay a decent medical fee or will pay merely a pittance that is less than the cost of rendering service is wholly another matter. It is a question settled differently by different states, and in some instances differently by different counties within the same state. The Committee on Medical Economics of the Colorado State Medical Society has been meeting three and four times a week on just this one problem, and is endeavoring to keep members informed of such progress as is made through bulletins to the secretaries of constituent societies and through personal talks before county societies.

So the logical next sentence is—attend your County Society meetings regularly. It is important.



Honors to Doctor Robert Levy

ONE hundred seventy friends sat to dinner April 4 at the Cosmopolitan Hotel, Denver, to commemorate Doctor Levy's fifty years in the practice of medicine. The ball room lacked nothing—decorations consistent with its name, the Silver Glade; dinner music; elevated speaker's table; microphone.

That diabolical device known as the microphone is a garrulous companion. As President of the Denver County Medical Society, Dr. W. W. King spoke first. His voice bore down on him like an antediluvian jungle monster. Cooperation is better than competition. So he lowered his voice. Toastmaster Leonard Freeman, admitting no defeat, stood aside and refused to give the †—!—! thing a chance. He classified himself and all other toastmasters among the incurable diseases—something to be tolerated until finally exterminated for all time. Heartily in accord with these sentiments, Dr. J. N. Hall headed the list of speakers. Dr. Levy is different than Dr. Hall; he always tells the truth. Hall's stories are therefore even more interesting than Levy's. Howev-

er, both agree with the philosopher who claimed that a lie is an abomination to the Lord but an ever-present help in time of trouble. With this knowledge at hand, the guests heard the story of Robert Levy's medical career—his responsibilities in medical societies and institutions, his tireless study, teaching, writing, and the personal attributes which account for his distinction.

Having expressed his astonishment at Dr. Hall's good speech, the Toastmaster introduced the next speaker, Claude Cooper. Dr. Cooper gave the details of the honored guest's career as an otolaryngologist. Dr. Levy has distinguished himself nationally and internationally in this specialty, particularly in important surgical developments of the past forty years. Dr. O. S. Philpott, Secretary of the Denver County Medical Society, read selections from a few of the many telegrams and letters sent by absent friends throughout the country. The communication from Dr. T. E. Carmody congratulated Dr. Levy upon his being elected Fellow Emeritus of the American Triological (Oto-Laryngo-Rhinological) Society at its convention in Charleston, S. C. Another more or less well-known colleague sat at the speaker's table. Strange enough, his name appeared on the program; Dr. Freeman thought he should have been Toastmaster; so did Dr. Hall. But John Amesse declined because he had been one once. Dr. Amesse particularly urged that our allegiance should not end with honors to a chosen few physicians who have held high the standards of medicine for half a century. There are a number in this state who should be similarly recognized.

Dr. Frank Kenney, Chairman of the Denver County Medical Society's Board of Trustees, unveiled and accepted for the medical library a splendid portrait of Dr. Levy. Three score friends of Robert Levy provided this gift. We understand the artist, Waldo Love, had been very enthusiastic about the enterprise—until he found out what he was up against. Waldo has done work for us before, and we always believed he was a great artist. Now we know it!

Medical-Legal Dinner

THE kindred woes of two learned professions seem to draw their respective adherents into the bonds of fellowship at Denver's Country Club about once a year. They jibe; as one looks about the great banquet hall he would be unable to single out one element from the other, for then they are one—a body of distinguished men. So great was the feeling of comradeship that twin programs were arranged, a program with a medical and a legal counterpart. The time element was also doubled, for the official part of the program ended at midnight. We have heard that an unofficial fracas carried on from there, and a certain element of the brethren didn't check in at home until the dawn of April 20.

Dr. W. W. King, Toastmaster for the doctors, was considerate; he admitted that his function was not to bore us with speech but to introduce those who would. Among the "introductory remarks" of Dr. James R. Arneill, the lawyers may have gleaned an invaluable suggestion. Since the last fifty years' progress in medicine has been chiefly in the field of prevention, why should the lawyers not expand a field known as preventive law? Perhaps they have better sense!

The lawyers also chose a bold Master of Ceremonies. Dean-Emeritus George Manly feels very kindly toward the doctors—as a rule. However, he is among those who have run onto an otherwise first class medical man opposing him on the witness stand. George Manly has rather acutely classified expert witnesses. In fact, there are three kinds of liars: liars, damn liars, and expert witnesses. One of the later speakers also has keen insight. Ben Hilliard, Jr., knows of doctors who have even told the truth when a lie would have served better. This speaker, Ben, was the legal counterpart to our own wit, Dr. Stahl. Art looked more strange than usual as he descended upon his audience from a staircase. At first he appeared disguised as a zebra, or two, but his sub-machine gun and kit of tools classified him in a different kingdom. He was an es-

caped convict. How he got that way constituted a delightful, if tragic, tale.

The performances of the twin Toastmasters were unique indeed. William Hutton, who made the "introductory remarks" for the lawyers, had likened them to the heavenly constellations—when one sets, the other rises.

Two masters of elocution concluded the program with romantic historical episodes—one depicted those which have changed the course of the world and of mankind; the other narrated the colorful characters who made the history of this State. Dr. John Amesse described scientific medicine's conquest of humanity's greatest scourges: yellow fever, cholera, and bubonic plague. Edward C. Ring reviewed certain phases of Colorado's history as shown in the lives of some famous characters—those people who refused to be classified, who made life worth living and history worth reading. If we might have Mr. Ring's talk in a gilded book, exactly as he gave it that night, it would add a masterpiece to our library shelf.



The Battle of the Barbiturates

THIS is the title given to the discussion that has been going on in the *Lancet* and *British Medical Journal*, since Sir William Willcox read a paper before the Royal Society of Medicine in December last, on the uses and dangers of hypnotic drugs. Sir William is a physician to St. Mary's Hospital, and widely consulted as a toxicologist. He urges "that the margin between the full therapeutic dose and the toxic, or coma producing dose, is not a great one." "Great over dosage, whether from suicide or confusional accident, has been a frequent occurrence in my experience." "The danger of toxic symptoms from too long repeated use of the barbitural group of drugs has been frequently observed." "The danger of addiction cannot be ignored."

In a paper on "Cisternal Drainage in Coma from Barbitone Poisoning," (*Lancet*, March 17th) Sir William is joined by Sir James Purves-Stewart, Consulting Physician to Westminster Hospital. They report five

cases. In three, spinal cord, cerebellar and mid-brain symptoms had developed, after taking ordinary hypnotic doses of barbitone drugs, over periods of six weeks to several years. These symptoms all cleared up promptly after stopping the drugs. Presumably these were neurotic patients or they would not have been taking hypnotic drugs over any such period. But Sir James is a neurologist, the author of a standard textbook, "The Diagnosis of Nervous Diseases." They are both members of the Royal College of Physicians of London. These cases are simply samples of a larger series in which one or the other of them has been consulted.

They also report three cases of acute veronal poisoning which ended in recovery, but which illustrate the toxic effects of barbitone medication. A lady 40 took 75 grains of "sodium hebaral." "Two hours later she could not be roused. Her medical advisor, finding her comatose, promptly washed out her stomach, performed colonic lavage, and energetically pushed strychnine and digalen hypodermically. Fourteen hours after taking the drug, when seen by both of us in consultation the temperature had risen to 103 F., heart 125, blood pressure 118/80. Respiration, 36 with dullness and tubular breathing over the lower lobe of the right lung. Cisternal puncture withdrew 16 c. cm. of cerebrospinal fluid. Six hours later—22 hours after taking the drug—she was still comatose and flaccid, with absent tendon-reflexes and contracted pupils; heart, 138. A second cisternal puncture withdraw 14 c. cm. of fluid. After nearly 25 hours of coma she woke up, and three hours later she was mentally clear and chatted freely."

In the other case the drugs were taken with suicidal intent and 13 days later the attempt was repeated. "A lady of 30 swallowed 48 grains of luminal with 30 grains of soneryl, making a total of 78 grains of barbitone compounds." She was comatose for 24 hours, during which the stomach was washed out, lumbar puncture and two cisternal punctures were done, and other treatment kept up. At 34 hours she was men-

tally alert. At her second attempt she took 100 grains of luminal at a single dose; she had lumbar puncture and three cisternal punctures. At 72 hours she began to make voluntary movements, and on the fourth day she talked confusedly. But mental confusion lasted until 8 days. Subsequent convalescence was uneventful."

These authors conclude "The barbituric acid compounds should only be obtainable on medical prescription, which should be retained by the pharmacist; and should not be repeated without written authority." This is a sweeping recommendation for a group of drugs that are on the market, under about thirty different names, many of them copyrighted. E. J.



Important Meetings Are Near at Hand

AS THE Annual A. M. A. meeting draws nigh, with only a few weeks before many of us head toward Cleveland, we realize that our own meeting will soon be upon us. Your attention is directed toward the Secretarial Notes on Page 179, this issue. Read carefully "Meetings—Our Own and the A. M. A."

May we emphasize the importance of our exhibits at the coming Colorado Springs Session! This phase is being particularly emphasized. We have been granted excellent space which is being budgeted and planned for splendid exhibits now in preparation. There is still some available space. Have you some practical demonstration of technic, equipment, specimens, collections or hobbies which your colleagues would enjoy? We are using "three dimensional" exhibits. Placard exhibits have not previously been favorably accepted. This does not preclude good diagrams, photographs and captions; it does exclude outlines, tables, graphs and statistics, when unaccompanied by "three dimensional" material.

Give the matter some thought, Doctor. The Exhibit Committee (Executive Office, 537 Republic Building) is anxious to cooperate in every way to facilitate preparation of your material and its suitable display at the Springs in September.

BRAIN ABSCESS*

HOWARD DARROW, M.D.
DENVER

Abscesses of the brain occur much more commonly than is usually believed. They occur in practically every part of the brain but are much more commonly found in the cerebrum than in the cerebellum or brain stem. About one-half of the brain abscesses discovered are multiple. The multiple abscesses that arise from adjacent infections are nearly always contiguous. Metastatic abscesses are much more frequently multiple than those which arise by direct extension.

Etiology

The most common cause of brain abscess is from pre-existing chronic infection of the ear. It may develop from direct extension from the middle ear or mastoid, usually through the roof of the petrous portion of the temporal bone resulting in infection of the temporal lobe. However, the infection may progress into the cerebellum or enter the cranial cavity by way of the internal auditory meatus. This one source, ear infections, accounts for about 40 per cent of all the brain abscesses encountered. The next most common cause is from infection in other parts of the body. This is the so-called hematogenous form. This type of brain abscess is usually multiple and occurs from a deposition of infected emboli in various parts of the brain. A large percentage of these metastatic and multiple abscesses develop from chest diseases. By far the largest single factor is bronchiectasis, but the intracranial infection may arise from empyema, pneumonia, and valvular heart disease. Pyemia at times causes brain abscess but is not as common as it is sometimes thought to be.

Metastatic abscesses of the brain account for about 20 per cent of all such abscesses encountered. About 10 per cent of brain abscesses develop from the paranasal sinuses, the abscess practically always developing from infection in the frontal lobe. Compound fractures of the skull, especially those

associated with a foreign body such as bullet wounds, account for a certain number of abscesses. Osteomyelitis of the skull and malignancies of the cranium account for a small number, while lues of the cranial bones seldom causes such an intracranial infection.

Most of the known pyogenic organisms may produce abscesses of the brain, but the staphylococcus aureus, the staphylococcus albus, the streptococcus hemolyticus and the pneumococcus account for most of them. The source of the infection in large part determines the type of infection found in the abscess. Those abscesses that arise from the ear and paranasal sinuses are usually due to the staphylococcus aureus.

Pathology

Abscess of the brain may be acute, sub-acute, or chronic in type. An abscess may pass through all of the three stages, while others terminate in the acute stage before surgery is applicable. Soon after a nidus of infection has been deposited in the brain the surrounding brain tissue quickly becomes swollen from edema. This edema continues to increase for several days, at the end of which time the infection becomes localized and the edema begins to recede. At this stage nature begins to build a fibrous wall or capsule around the area of infection. But it requires some four to six weeks for a visible capsule to develop and usually much longer before the infection is completely walled off. If the virulency of the infection is great the individual may become overwhelmed both systemically and from the intracranial pressure which results from an excessive cerebral edema. The natural result is a fatal outcome before sufficient time has elapsed for the walling off process to develop. If a fairly well developed capsule is examined microscopically it will be found to consist of three layers. The layer of capsule next to the abscess is thin and is composed of connective tissue fibres that cross and intercross with or with-

*Presented at the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs, September 15, 1933.

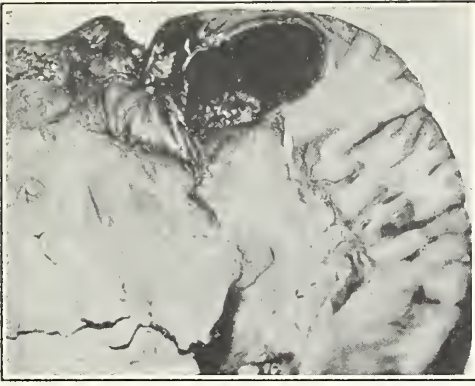


Fig. 1. Gross appearance of rather large single brain abscess following chronic ear disease.

out narrow interspaces and possess very few if any blood vessels. The middle layer is much broader and is rich in capillaries, plasma cells, and fibroblasts. The third layer shows less fibrous tissue but more leukocytes, blood vessels, and necrotic brain tissue. Outside the capsule there are no changes in the ganglion or glia cells nor in the nerve fibers. The only altered structures in the preserved brain tissue are the blood vessels and the subarachnoid space. The purulent material within the capsule of the abscess is usually of creamy consistency but may be much thicker, sometimes of a greenish color and may be offensive. These abscesses usually vary in size from a grape to a billiard ball and have been known to



Fig. 2. Multiple abscesses of the cerebellum associated with chronic otitis media. Note thick walls of abscesses as well as extension of anterior abscess from original one nearer surface.

attain the size of a small orange. The stock of an abscess so commonly spoken of where the abscess has developed from an extension of an adjacent infection, such as the ear, usually disappears by the time a capsule is well formed. This is apparently due to the fact that the abscess develops in the medullary portion of the brain and is cut off from the surface by the richer blood supply of the cortex.

Diagnosis

It has been aptly said that no organ in the human body can so cleverly conceal its trouble as a brain harboring an abscess. The diagnosis presents two difficulties: first,

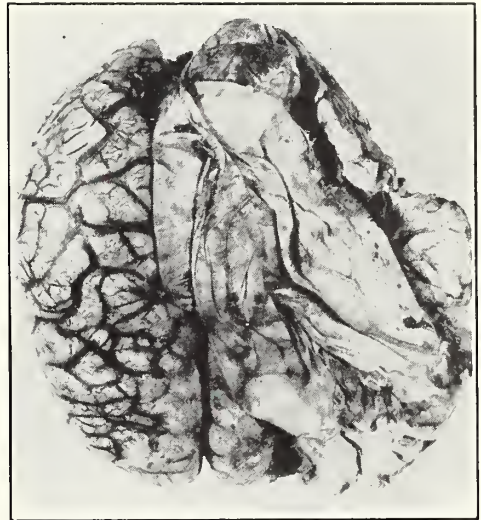


Fig. 3. Showing extent to which a brain may be destroyed before death ensues.

whether or not an abscess is present; second, in localizing the abscess.

In determining whether such an infection is present we must keep in mind the presence of such etiological factors as infections of the ears and sinuses, compound fractures of the skull, and bronchiectasis. A painstaking history is very important, as a healed ear infection for example may have been forgotten by the patient or person interviewed.

One must keep in mind the pathology such as the stages of development of the abscess, since the symptoms and signs vary with the stage of formation of the capsule.

Early, before the infection is "walled off" from surrounding brain tissue, we expect to find chiefly the evidence of infection such as fever, elevated pulse and leukocytosis. Later, when a capsule has formed these symptoms naturally subside, but as the abscess varies in size the signs of increased intracranial pressure develop. Then headache ensues, especially on the affected side. Changes in the sensorium and consciousness, slow pulse, as well as optic neuritis develop. These naturally vary in their intensity according to the amount of intracranial pressure.

Lumbar puncture will frequently show an increased protein content of the spinal fluid. This increase varies from 50 mg., which is

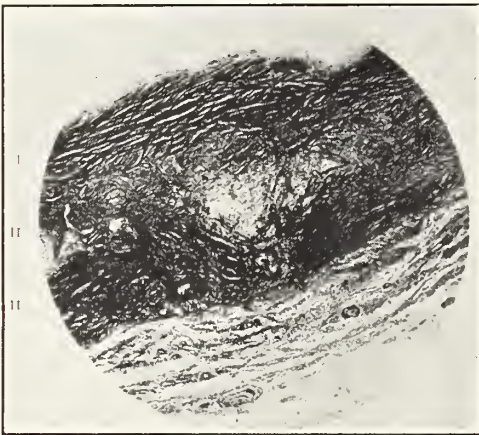


Fig. 4. Appearance of the three layers of a brain abscess capsule. Observe in lowest part of picture thin strands of fibrous tissue which lay nearest the abscess cavity. Note the second layer is thicker while the third or outermost layer shows very thick bands of connective tissue which firmly walls abscess from surrounding brain.

slightly above normal, up to 150 mg. per 100 cc. Otherwise the spinal fluid usually shows only a slight increase of pressure and few leukocytes.

By the above-mentioned methods of determining the presence of an abscess one may feel confident that an abscess is present in the brain, but to locate the abscess may be a very difficult procedure. Focal symptoms, when they exist, are naturally of



Fig. 5. Antero-posterior view of lipiodol in abscess of frontal lobe.

great value. These include monoplegia, hemiplegia, aphasia and involvement of the hearing centers. Indentations of the fields of vision, as pointed out by Eagleton, is a localizing factor due to pressure upon the optic tract from edema. But not uncommonly brain abscesses offer no focal symptoms especially early and when located in the frontal lobes. Then resort to other methods are necessary as for example, encephalography or ventriculography.

Treatment

Fortunately more of the brain abscesses encountered are single than multiple. It is rare that multiple abscesses are ever successfully treated. Up until several years ago



Fig. 6. Lateral view of lipiodol in same case.

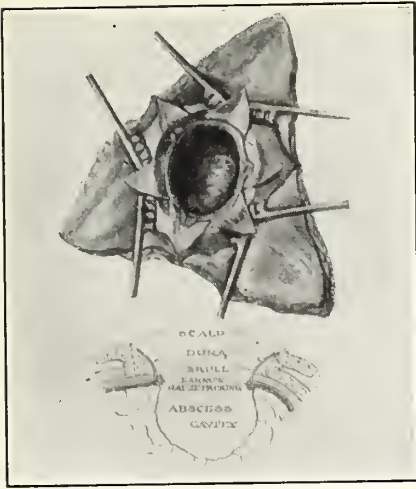


Fig. 7. Diagrammatic view of King's unroofing operation as described under treatment in text of paper.

the operative interference with this type of intracranial infection was instituted as soon as the diagnosis was made. By experience it has been found that waiting for the formation of a capsule, which requires from three to six weeks, is a more successful method of handling the condition. It is true that some of these patients will die before the abscess is encapsulated, but surgical interference only hastens the death of the patient. Waiting the above-mentioned period or longer gives the brain an opportunity to "wall off" the infection if the brain is suc-



Fig. 8. Patient that recovered following operation upon cerebellar abscess associated with chronic otitis media. Portrays one of the dangers of a chronically discharging ear.

cessful in developing a capsule. The edema and other reaction of the brain gradually subsides; this produces a lowering of the intracranial pressure, which in turn makes for a more favorable operative procedure. In addition, there is developed a local and a constitutional immunity as well as an attenuation of the organisms within the abscess cavity.

A decompression operation may be necessary during the formation of the capsule in order to lessen the intracranial pressure. This operation should be performed as near directly over the abscess as possible. There is probably an additional benefit derived

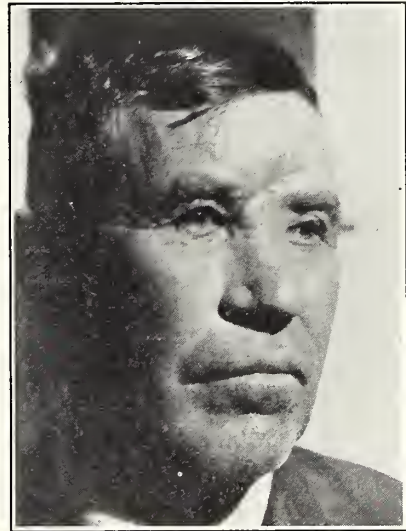


Fig. 9. Patient that recovered following operation on large frontal lobe abscess of two years' duration. Injured by a falling rock following dynamite blast.

from this preliminary operation in sealing the dura before the abscess itself is opened.

The drainage of the abscess itself might be divided into four methods, as follows:

1. Single or repeated tapping. This is performed by use of a rather large ventricular needle inserted through the preliminary decompression wound or through a small trephine opening with only a small nick in the dura. The pus is allowed to escape by virtue of its own pressure; that is, no aspiration is instituted. It is claimed by Dandy of Baltimore who first instituted this method

that all the brain needs to overcome its infection as a rule is relief of the intracranial pressure which this technic affords. If necessary at intervals of a week or so repeated tapings are performed.

2. Drainage by use of catheter. In this procedure the eye end of a soft rubber catheter is inserted in the abscess cavity after the pus has been drained. This catheter is allowed to remain in place, gradually being extruded as the cavity is obliterated by the healing process.

3. In the last few years electrocoagulation has come into use in the treatment of



Fig. 10. Girl who succumbed to multiple brain abscesses complicating bronchiectasis.

these cases. After a trephine opening is made, the exposed dura and the overlying brain tissue in the shape of a cone are removed by use of the radio knife down to the abscess cavity. A wire basket patterned after the Mosher type is inserted into the cavity and stitched to the surface of the wound.

4. Uncapping of abscess. Dr. King of New York City has been the advocate of this form of treatment. It is considered a radical procedure but is probably indicated in a certain class of patients. It has the advantage of a complete eversion of the abscessed cavity so that there is no danger of secondary abscesses. Secondary abscess



Fig. 11. Patient operated one year ago with complete recovery to date of frontal lobe abscess. Injury produced by flying power saw while cutting wood. Pieces of brain tissue removed at time of injury.

formation has always been a serious complication in the treatment of intracranial infections.

It has been my experience that the less trauma the brain receives the greater chance the patient has for recovery. Consequently I believe the mortality rate which has been estimated to be from 60 to 75 per cent, will be much lower if our operative procedures, excepting in unusual cases, is limited to the methods as advocated under No. 1 and No. 2, namely, tapping or drainage by catheter.



Fig. 12. Subdural abscess involving Rolandic area following osteomyelitis of the skull. Patient succumbed. This is a rare cause of brain abscess.

BRAIN TUMORS*

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The title of this paper is meant to imply the inclusion of all intracranial space-occupying lesions that produce their disastrous effects by pressure on the brain or cranial nerves.

An examination of the autopsy records at the Denver General Hospital for the past ten years shows one death from brain tumor to every two hundred autopsies. Since this hospital is a general hospital admitting almost every type of disease and offering no particular attraction for specialized illnesses, it is believed that this is a fairly accurate index of the brain tumor deaths among the average population. This places the cause of death from brain tumor well up among the common causes of death. Death certificates for the entire state of Colorado for 1932 bear out exactly the same proportion of brain tumor deaths. Since brain tumors are of such common occurrence and as the development of brain surgery to its present state permits the removal of lesions which means certain death, it behooves the medical profession to recognize some of the symptoms of intracranial growths in the early manifestation of the disease. To await all the full-blown symptoms of brain tumor to develop before treatment is undertaken is (as it is in many diseases) too late for a successful outcome. With our present methods of examination it is possible to make a positive diagnosis, accurately localize and remove a tumor that causes only one single complaint.

Persistent headache, vomiting, loss of vision, epilepsy in adults, unilateral loss of hearing, and a slowly developing hemiparesis are the early symptoms of brain tumor. Any one of these alone can be the only indication of an intracranial lesion and is sufficient for an exact diagnosis and treatment. Many times these symptoms are combined with one another and many other minor associated signs may also be present such as

ataxia, nystagmus, double vision, personality changes, enlargement of the head, parietic extremities, disagreeable odors, and a host of less common ones which are often a part of the tumor picture, but which are not essential for the making of a positive diagnosis.

Headache is the most common single symptom of brain tumor, but need not be present in everyone. It is frequently absent in children. It is not often localized but more commonly present over the entire cranium. It is dull and throbbing in character, gradually increasing in severity but not necessarily constant. The patient may be entirely comfortable for hours or days at a time. Vomiting in adults is usually explosive in type and is associated with headache. In children it is an early sign of brain tumor, may be the only symptom, and unaccompanied by headache. Loss of vision as an early complaint occurs when the tumor presses directly on the optic nerves as in tumors in the frontal lobes, or in pituitary tumors where the pressure is on the chiasm and optic nerves. In the pituitary tumor the loss of vision is to the temporal sides of the patient. Vision is diminished by tumors in the temporal or occipital lobe. With a lesion so located the vision is lost on the side of the patient opposite to the lesion. Almost half the patients showing epilepsy after the age of 25 years have a brain tumor as its cause. This may be the sole complaint for several years, then other signs of intracranial involvement appear. A progressive loss of hearing in one ear with a loss of vestibular nerve function on the same side indicates an acoustic nerve tumor, and should be suspected in every case of unilateral nerve deafness.

Any one of the above mentioned symptoms must excite the suspicion of an intracranial tumor. A thorough painstaking history and neurological examination is of course the first prerequisite to the diagnosis of a brain tumor. This must include a most careful eye examination with visual fields. The surgeon who treats tumors of the brain

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must be trained in the neurology of surgical diseases of the nervous system. Without a thorough knowledge of neuro-anatomy and neuro-physiology, surgery of the brain becomes a hopeless task with no hope of a successful outcome and can be considered nothing less than a murderous procedure.

Roentgenography will often disclose a brain tumor or indirect evidence of a tumor. Calcification occurs in many of them. Some, as the meningiomas, erode the bone, and often the constant pressure effect of a tumor can be seen in a dilatation of the sella, a widening of the suture lines (in children) or in an irregular thinning of the bones of the cranium. It must be remembered, however, that the plain x-rays will show a brain tumor in only a small percentage of the cases.

Brain tumors can be safely and positively diagnosed and accurately localized by the injection of a small amount of air directly into the ventricles of the brain. This procedure, ventriculography, is not to be confused with encephalography, which is the injection of air through a spinal puncture needle. Encephalography is a dangerous procedure in any state where the intracranial pressure is above normal, and should never be performed for the diagnosis or localization of a brain tumor. Ventriculography, properly performed, is safe and permits the surgeon to attack the lesion directly.

The removal of a brain tumor by surgery is the only cure for this disease. There is no authentic instance of a cure by x-ray, drugs, or serums. Gumma of the brain, which is a very rare tumor, is the only exception. X-ray is proving to be a valuable adjunct in the treatment of these lesions, but it should be used only on the advice and under the direction of the neuro-surgeon.

The following cases are illustrative of the more common types of intracranial tumors. The gliomas are tumors composed of cells that are similar histologically to those found normally in the nervous system. They make up about 40 per cent of all intracranial tumors. The following two cases are representative of this type of tumor.

CASE 1

A female 55 years of age complained of a headache of six months' duration. She was forgetful and worried a great deal. Physical examination showed no abnormalities. There were no choked discs and the visual fields were normal. Ventriculography showed a tumor of the right occipital lobe. An exploratory craniotomy disclosed the tumor which appeared to be a very malignant type of glioma. A decompression opening was left and x-ray treatments given. She greatly improved for six months when she again showed marked pressure signs. At this time she showed a homonymous hemianopsia to the left. A second exploratory operation with a larger flap was done in the hope that the occipital lobe might be removed. The tumor was of such huge size that this was impossible. Death occurred three months later. Autopsy showed a huge glioma (spongioblastoma) involving the occipital lobes as well as part of the temporal and parietal lobes.

CASE 2

Brain tumors in children usually occur in the posterior fossa and a great percentage are gliomas of a high degree of malignancy. The following case is typical of a brain tumor in childhood. An eight-year-old girl with the complaint of vomiting for nine months was found on examination to be stuporous and blind. Her mother states that she had been very ataxic for three months. She had had very little headache and had been confined to bed for the past ten days. Examination disclosed that the child was entirely blind even to light. There was a cracked pot sound to the skull on percussion. Both pupils were dilated and did not react to light. There was a marked secondary optic atrophy with a bilateral papilledema of three diopters. The tendon reflexes were hyperactive with a bilateral Babinski and ankle clonus. X-rays showed dilated suture lines with convolutional atrophy. Since the child was very ill, in fact too sick for an exploratory operation, the lateral ventricle was tapped through a trephine opening each day for five days. She improved so by this release of pressure that a cerebellar craniotomy was performed. A tumor was found after splitting the vermis at the upper end of the fourth ventricle. It was a cystic glioma and only a small portion could be removed. She returned home three months after her operation, following two courses of x-ray therapy, ambulatory and with few abnormal signs. Persistent vomiting in childhood is an early symptom of brain tumor.

The second most common type of intracranial tumor which constitutes about 13 per cent of all these growths is the fibroblastoma, meningioma, dural endothelioma or psammoma which grows from elements in the coverings of the brain.

CASE 3

A married woman, 36 years of age and in apparent good health, complained of headache of nine months' duration. Though not constant, the pain would recur with increased vigor and last longer each time. She had vomited perhaps three or four times in the two weeks previous to the examination. Examination of the patient was entirely negative except for a slight edema in the discs of both eyes. X-rays showed a slightly suspicious point of erosion at the point of the petrous portion of the right temporal bone. Ventriculog-

raphy disclosed a tumor beneath the right temporal lobe. Through a craniotomy opening a large nodular solid tumor about two inches in diameter was removed. Recovery was uneventful. The tumor proved to be a so-called dural endothelioma or meningioma.

These tumors are frequently encapsulated and can be entirely removed with a permanent cure of the patient. Hemorrhage incident to their removal is often profuse and its control will tax the skill of the best trained surgeon.

Pituitary tumors grow from the anterior lobe of the hypophysis. Three common types are recognized:

1. The chromophobe adenoma which early produces an increase in weight and a cessation in menses associated with a loss of vision to the temporal sides.

2. The eosinophilic adenoma which early causes acromegaly in adults and gigantism when it develops in childhood. Later it produces blindness.

3. The third tumor of the pituitary mechanism is that formed from the stalk of the pituitary gland where it joins the brain. These have been called pituitary duct tumors, Rathke pouch tumors, and cranio-pharyngiomas.

CASE 4

A woman 55 years of age consulted an ophthalmologist for failing vision. She had always menstruated normally to her menopause and had been excessively fleshy. She stated her whole family had been large people. There had been no headache. Vision in the right eye was .1, in the left .4. Both discs were pale and glistening. The visual field in the right eye was largely lost to the temporal side. The physical findings other than the eyes were normal. X-rays showed an enlarged sella turcica.

By a right transfrontal approach a pituitary tumor was found and removed weighing eight grams. Convalescence was uneventful. Three months later she had almost full vision and it has remained so to date (three years later). Microscopically the tumor was a chromophobe adenoma.

CASE 5

A girl six years of age complained of headache and vomiting for six months and failing vision for two months; otherwise she was in good health. Physical examination showed a slight diminution in vision and bilateral choked discs of about three diopters. X-ray examination revealed a large sella with a streak of calcification running upward from the posterior clinoid processes to the region of the third ventricle. It was possible to make a positive diagnosis from these findings of a craniopharyngioma. When told of the hazards of an operative procedure the parents became immediately uncooperative and turned to Christian Science. Two years later the child died. No autopsy was obtained.

A common tumor which forms from a blood clot occurring over the cerebral hemispheres following a jolt to the head is the

pachymeningitis cyst. The blood from a broken vein collects over the hemisphere, becomes encapsulated, gradually increases in size and eventually causes death.

CASE 6

A cowboy 23 years of age gave the history of having fallen from a horse eight months before. He was never unconscious and continued at his work. Immediately following the fall he had a very severe headache, and it was for this that he sought medical care. Examination revealed bilateral choked discs of three diopters and nothing more. Ventriculography disclosed a large left-sided tumor. Craniotomy disclosed a large pachymeningitis cyst reaching from the tip of the frontal lobe to the tip of the occipital lobe and from the falx above to the base of the skull below. By turning down two large bone flaps the tumor was completely removed. It was filled with old disintegrated blood and bile-like pigments. He was fully recovered and completely well six months later.

Fibroblastic tumors frequently grow from any nerve sheath in the body, but those neurinomas which grow from the acoustic nerve and which cause a unilateral loss of hearing are the ones most frequently found in the cranial cavity.

CASE 7

A rancher 45 years of age noticed that for the past three years his hearing in the right ear was failing. One year ago he began having headaches and became unsteady on his feet. He also noticed his vision failing for the past three months. Examination disclosed a total nerve deafness in the right ear and a loss of vestibular response. Both optic discs showed four diopters of swelling. There was a slight nystagmus. The right facial muscles were very weak and there was a right corneal anesthesia. He was very ataxic and all the tendon reflexes were hyperactive. Operation disclosed a tumor of the cerebello-pontile region which was removed by an intracapsular enucleation. The tumor weighed 23 grams. Six months after the operation he is symptom free except for deafness in the right ear.

Angiomas occur in the brain and may be of veins, arteries, capillaries or a combination of all three. They grow, occupy space, and require treatment the same as any other neoplasm in the cranial cavity. Some are amenable to surgical extirpation; others respond to x-ray therapy.

CASE 8

A woman 37 years of age complained of failing vision and numbness of the left arm, ulnar border. Examination showed an ulnar nerve neuritis, left side. There was a bilateral optic atrophy with a binasal hemianopsia. Vision was greatly reduced. Ventriculography disclosed a tumor mass in the left occipital lobe. When the ventricular needle entered the occipital lobe left side about 6 cm. there was a profuse hemorrhage through the needle. This one was withdrawn and the air placed in the right ventricle. There was no disturbance following this. A left craniotomy flap

was made six days later. On incising the cortex of the occipital lobe a large vascular mass was encountered at a depth of 3 cm. which appeared to be an arterial angioma. The wound was closed leaving a subtemporal decompression opening. Since then she has been given repeated x-ray treatments with definite improvement in her vision. Her physical condition has remained excellent.

Brain abscesses are commonly encountered by the neuro-surgeon and must be considered among the intracranial space-occupying lesions. The problems incident to the diagnosis and treatment of brain abscesses are those common to all intracranial growths. While they often occur in direct connection with an infected ear or sinus, they frequently require ventriculography for localization and a surgical approach which is at some distance from the initial point of infection.

CASE 9

A pitiful little boy 5 years of age was seen crying bitterly, with the complaint of a severe headache which had been present for three weeks. At two years of age he had a fracture of the left frontal bone from a horse kick, and a small piece of bone had been removed. Three weeks before he had had a severe cold lasting two weeks. He was totally blind with barely light perception. Both fundi showed a papilledema of four diopters with multiple hemorrhages. Neurological and x-ray examination disclosed no localizing signs. Ventriculography disclosed a left frontal space-occupying lesion. As a brain tumor was suspected, a bone flap was turned down in the left frontal region. The dura was nicked with a knife and a ventricular needle inserted 3 cm., evacuating about two ounces of purulent exudate. The bone flap was replaced and drainage placed just beneath the skin. There was profuse drainage from the wound for about three months; some

necrotic bone had to be removed. Now eight months after his operation he is entirely well. His vision has returned to 4 in both eyes and this fall he starts to school. Had there been positive evidence of a brain abscess, a bone flap would not have been turned down, but as the dura was opened only over the site of the abscess cavity, no particular harm was done.

There are many other types of intracranial tumors which are less common than those here mentioned. Such are the pinealoma, chordoma, pearly body tumor, syphilomas, tuberculomas, osteomas, sarcomas and metastatic carcinomas which space prevents discussing. Each of the pathological types has peculiarities which are of vital importance in their treatment by the brain specialist but need not be considered by the clinician in the diagnosis of a brain tumor. It is only necessary that he recognizes some of the more common signs of intracranial space-occupying lesions as have been illustrated by the cases presented above.

There was a day when operation for acute appendicitis was a murderous procedure and the patient was better off if left to take his chances without surgery. There exists in the minds of many physicians that the same situation now pertains to brain tumors. With the development of present day neurosurgery, it is almost as serious a blunder to deny operation to a brain tumor patient as it is to refuse to have operated a person suffering from acute appendicitis.

NARCOLEPSY*

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When Dr. Weisenburg, in the course of his address before this society last year, described the symptoms of narcolepsy, a very audible titter passed through the audience. The weaknesses and limitations of human flesh have their humorous aspects, and we may be forgiven for smiling when a patient tells us that he is often so drowsy that he will fall asleep at table even in the presence of strangers, that he is afraid to listen to a funny story lest he collapse in a helpless

state, or that whenever he hooks a fish his limbs become powerless. To the one afflicted, however, the malady is a source of profound embarrassment; the drowsiness which he cannot entirely overcome may cost him his job or he may fall asleep in very dangerous situations. Narcolepsy being much more common, furthermore, than was once thought, it is well worth our serious consideration.

Frequent attacks of a more or less irresistible desire to sleep and a transient muscular weakness and loss of tone induced by laughter or other forms of emotional excitement, generally referred to as cataplexy,

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The author has an extensive list of references which he will be glad to supply on request.

constitute the cardinal manifestations of the disease. Either symptom may exist independently of the other; of the two, abnormal drowsiness is the most frequent. The cataleptic seizure may at times occur spontaneously, and occasionally cases are seen in which emotional excitement will cause the patient to fall asleep. The cataleptic phenomena vary in severity from a slight bending of the knees or a momentary relaxation of the muscles of the head and neck to the complete attack in which the patient falls to the ground, fully conscious, but a mass of toneless muscle. Recovery is always prompt, however, and aside from a transient drowsiness which may supervene, the patient is usually none the worse for his experience. Slight degrees of emotional stress, such as the elation experienced on meeting a friend or drawing a good hand at cards, may suffice to precipitate an attack.

Other varieties of attack are described now and then. In the type known as hypnagogic catalepsy, for instance, the patient will pass, shortly after retiring or when in some other situation conducive to sleep, into a state of utter helplessness. Though unable to speak he will often summon help by emitting an inarticulate sound, for a touch or shake administered by another person will generally enable him to regain control of his muscles. The term "catalepsy of awakening" refers to a similar helpless state in which the patient may find himself upon awakening from sleep. Although the patient is aware of his surroundings and believes himself to be wide awake, he may, while in either, but particularly the former of these two states, experience very vivid and unusual dreams which because of their vividness are often termed hallucinations. These hypnagogic hallucinations or dreams experienced in a half-waking state occasionally occur apart from other narcoleptic phenomena. Brief attacks characterized by weakness as well as drowsiness may be called transitional states, since they resemble in some respects both the attack of sleep and the cataleptic seizure. The fleeting diplopia complained of by some narcoleptic patients seems to represent a transient failure of the

capacity of fusing visual images. This phenomenon may be experienced by any drowsy person and is not to be confused with the diplopia characteristic of the acute state of epidemic encephalitis. The patient may at times perform his duties in a more or less automatic manner without being able subsequently to recollect having done so. A salesman who was subject to these states of diurnal somnambulism, informed me that at such times he was asleep with his eyes open.

At night the narcoleptic patient may be a prey not only to a troublesome insomnia, but also to dreams which are exceedingly vivid and often terrifying. Reference has been made to the states of powerlessness which may supervene while the patient is falling asleep or while he is awakening. Everything, in fact, seems to point to some fundamental disturbance of the sleep regulating function.

The onset of narcoleptic symptoms is accompanied, not infrequently, by a rather rapid gain in weight. Slightly more than half of those afflicted, in my experience, are overweight. When the symptoms appear early in life, sexual maturity may be retarded; when they appear later, potency and desire occasionally suffer. Aside from an increased irritability attributable to the habitual drowsiness, mental disturbances or changes in personality are rare.

In some cases the onset is quite insidious; in others, the symptoms soon reach their full measure of severity. The course is essentially chronic, marked improvement being infrequent and complete recovery decidedly rare. So far as general health and longevity are concerned, however, the prognosis is good.

The typical narcoleptic is a healthy and well nourished but sleepy appearing individual. A strained and rather anxious look about the eyes, due apparently to the constant effort to keep awake and the fear of falling asleep, is quite characteristic. In a series of 115 cases, including forty-two collected from the literature, I found the basal metabolic rates within the range of normal in nearly half, the average reading for the entire group being -7. Low rates were more

frequent by far than high ones, however, particularly among the women.

Narcoleptic attacks are prone to make their initial appearance during adolescence and early adult life; the age incidence reaches its peak in the latter half of the second decade. Males are afflicted about twice as often as females. With the pandemic of lethargic encephalitis still fresh in the minds of physicians, many are inclined to look upon narcolepsy as a manifestation of chronic encephalitis. In a number of cases of narcolepsy, as a matter of fact, the onset has occurred shortly after recovery from acute infectious diseases, including encephalitis, and the recent increased incidence of narcolepsy is not entirely accounted for by its more general recognition. It has not been proved, however, that encephalitis is the most common cause of narcolepsy. Narcoleptic symptoms may appear shortly after a severe injury to the head, but the number of reported cases, in which trauma appears to have been an important etiological factor, is relatively small. A constitutional predisposition may play an important part even in the post-infectious and post-traumatic cases. There is much in narcolepsy that would suggest an endocrinopathy, although evidence sufficient to incriminate any particular gland is lacking. It has been assumed but, in the absence of any post-mortem findings, not proved that the primary disturbance occurs in a hypothetic sleep regulating center located in the floor of the third ventricle of the brain.

Tumors and basillar luetic processes involving the structures in the floor of the third ventricle may give rise to hypersomnolence. Abnormal drowsiness may also be encountered in pregnancy, myxedema, diabetes mellitus, obesity, polycythemia, deficient oxygenation of the blood, and malnutrition. These conditions must therefore be considered in the differential diagnosis, although in a person subject to both attacks of sleep and cataplexy, there is little doubt as to the nature of the disorder. Cases have been reported in which narcoleptic symptoms were associated with the usual manifestations of epilepsy, but the great major-

ity of modern writers do not regard narcolepsy as a form of epilepsy.

Prior to the discovery of the symptomatic relief afforded by ephedrine sulphate, the treatment of narcolepsy was quite unsatisfactory, although thyroid medication was beneficial in a limited number of cases. Treatment with ephedrine, it is true, often leaves something to be desired, but it is distinctly worth while in about 80 per cent of the cases. Many patients are practically free of their attacks so long as they avoid overexertion and take the proper amount of ephedrine. In some instances, doses of $\frac{3}{8}$ gr. (25 mg.) two or three times daily will suffice. If a third dose is necessary it should be as small as possible and not be given later than 4:30 p. m., as otherwise nocturnal sleep may be disturbed. Injections of air into the subarachnoid space, as is done in making encephalograms, has, in a few instances, been followed by a disappearance of symptoms. This method of treatment seems to be particularly effective in cases of post-traumatic narcolepsy.

ABSTRACT OF DISCUSSION

Frank R. Spencer, M.D., Boulder: Brain abscess of otitic origin is more frequently a complication of chronic suppurative otitis media than of the acute form. In Okada's series, 81 per cent were due to chronic suppurative otitis media and 19 per cent to acute. In Newmann's series in Vienna, 88 per cent were due to chronic and 12 per cent to acute. In Grunert's series 91 per cent were due to the chronic type of infection and 9 per cent to the acute.

Headaches are rather common but they are not always present. It is an important symptom if it is present. It is very likely to be present during the stage of acute infection of the brain substance—that is, when the abscess is progressing. Insomnia is also an important symptom when it is present. A subnormal temperature is often looked for. We often discuss it among ourselves when we are seeing a case, but if the pressure becomes equalized somewhat, if the brain abscess has lasted long enough there is a readjustment of intracranial pressure and a subnormal temperature isn't found. Mental dullness isn't always present; some patients are very alert mentally. Loss of motor will power may be present but isn't always present except late, and a late diagnosis isn't very helpful for the patient. Optic neuritis has been mentioned in nearly every discussion of this subject. Several years ago Professor E. Ruttin in the ear clinic in Vienna and his brother, Professor O. Ruttin in the eye clinic, had 144 cases in a series and if I remember rightly none of them showed any evidences of changes in the optic disc of either eye. They arrived at a sweeping conclusion that changes in the optic nerve head were of no importance and do not

occur in brain abscess. Very few men agree with that sweeping statement.

We are certainly all impressed that such a symptom isn't to be relied on, at least the negative finding can't enable us to exclude a brain abscess. Changes in the optic disc are much more frequent in a case of meningitis than they are in brain abscess. Some pupillary changes are important. For instance, you may find on the side of the lesion that the pupillary reaction is either slight or accommodation is sluggish; after a while there may be a dilated pupil. We all look for focal symptoms. We are not very likely to find them. Focal symptoms, if present, would be of tremendous help, but we can't wait for them. Motor aphasia, word blindness or phycical blindness are also helpful if they are present.

One symptom in abscess of the cerebellum is very helpful when it appears. We have had at Colorado General a few cases of cerebellar abscess where incoordination hasn't been present. When the patient is asked to do anything which coordinates the movements of the two hands such as playing a piano or turning both hands, the hands on the normal side will perform the movement in a perfectly normal manner; the hand on the other side will lag behind. That helps greatly in telling you quite positively that there is a lesion on that side of the cerebellum.

Those of you who do ear, nose, and throat work are familiar with Baranay's tests of the internal ear. I have heard Wells P. Eagleton of Newark say that the symptoms are of very little or almost no value. I don't mean I disregard them. He uses them, but he can't always depend upon them. The late Dr. Lewis Fischer of Philadelphia felt that they were very dependable. Probably many of you remember one of his rather recent articles in which he recited quite a series of cases from the University of Pennsylvania clinic substantiating Baranay's test and showing how the tests were helpful in making a diagnosis of intracranial lesions.

Dr. Harry P. Cahill of Boston has made an exhaustive study of brain abscesses. He knows the anatomy of the brain better than most of our otologists, and before the American Otological Society in 1925 he reported a series of twelve consecutive cases with 100 per cent cures. Eighteen or twenty years ago any brain surgeon who had 25 per cent of cures to his credit was looked upon as a whirlwind. Dr. Cahill reported twelve consecutive cases treated with Mosher's brain drains and all greatly relieved, I won't say "cured." He reported these cases several years after the last operation.

Dr. Darrow, Closing: Relative to acute infections of the ear and sinuses, it is true that they occur not nearly so commonly as the chronic infection because it has to be a very slow developing infection, else the intracranial lesion results in a meningitis instead of a brain abscess.

Many brain abscesses give no localized symptoms. I think visual fields, however, are of some value when the abscess affects the optic nerve.

The mortality rate is usually estimated from 60 to 75 per cent, or has been in the past. However, I believe with the simpler methods as I mentioned, such as repeated tapping or the simple draining with a catheter and not resorting to some of the more radical procedures which are more or less obsolete today, our mortality rate is being materially cut down. I haven't seen any statistics in the last year or two but I venture to say that instead of 60 or 75 per cent, that with better localization, better cranial surgery and a

better method of drainage, probably this mortality has been cut down decidedly below even 50 per cent.

Dr. Jaeger, Closing: Brain abscesses are space-occupying lesions. They produce the same symptoms as brain tumors, which occupy space, only the symptoms come on quicker and there is added the symptoms that come with inflammatory disease, frequently but not always—that is, fever, chills, leukocytosis. They develop papilledema, but it takes some time for an intracranial lesion to produce papilledema. When a brain abscess is present several weeks we will have papilledema of the most vicious type, because it is an optic neuritis along with papilledema.

As to the treatment of brain abscesses, I want to discourage the thing that I have seen several times. That is, in case of an abscess causing intracranial space-occupying symptoms, a mastoid or sinus is opened, the dura is exposed—all perfectly proper procedures. Then on the assumption that there is an abscess directly underneath the primary focus of infection, a knife is plunged through an infected area into a perfectly good-looking dura and perfectly normal brain, perhaps, in the hope that they will find an abscess there. That, to my mind, is not justified. If you don't find an opening from the infected area leading down to an abscess, air injection must be done in order to localize that abscess cavity, because it may be on the opposite side of the head from an infected ear; it may be in a temporal lobe right above the ear; it may be in the cerebellar lobe in either tentorium, so that you endanger the patient's life by spreading an infection in a clean area, and you will certainly do no good.

Dr. Daniels, Closing: Dr. Darrow's point that a brain abscess is not encapsulated and therefore not ripe for operation so long as the patient has a fever and leukocytosis is well taken. Severe headaches, particularly those which awaken the patient at night or in the early morning hours, are always open to suspicion, in view of the fact that brain abscesses and tumors are known to be far more common than formerly supposed.

An investigation to find what the average family pays for medical care was made by the Metropolitan Life Insurance Company among the members of the families of its own field force. It found that the average annual expense per family was \$104.20. Among families receiving from \$1,200 to \$2,000, the expense for medical care averaged \$63.40. Among those getting \$2,000 to \$3,000, it averaged \$80.38. Those getting from \$3,000 to \$5,000 paid \$110.54, those getting \$5,000 to \$10,000 paid \$167.77, and those getting \$10,000 and over paid \$270.34. These figures are less than those reported by the survey of the Committee on the Cost of Medical Care, whose estimates for the same incomes were \$66.81, \$94.84, \$137.92, \$249.35, and \$503.19 respectively. — New York State Journal of Medicine.

CASE REPORTS

SQUAMOUS CELL CARCINOMA OF THE PANCREAS

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Squamous epithelium is not normal to the pancreas. This organ of complicated function is a compound tubulo-acinar gland composed of an immense number of small lobules associated into lobes. The lobules are made up of acini of secreting columnar or pyramidal epithelium and small ducts which are in association with the acini in a manner peculiar to the pancreas. The interlobular ducts are lined with a single layer of columnar cells as are the larger ducts including the main excretory duct (Wirsung) and the accessory duct (Santorini). Scattered through the parenchyma of this gland are more or less circumscribed, well defined groups of polyhedral cells varying in size from those of but a few cells to those containing many cells, the islands of Langerhans. These islets constitute an endocrine organ secreting insulin and apparently represent an entirely independent colony.

Carcinoma of the pancreas is a common form of abdominal malignancy. These new growths usually offer no difficulty in their recognition. They may take the form of adenocarcinoma with a complex tubular arrangement and high cylindrical epithelium, or carcinoma simplex with small groups and strands of cells growing in a heavy connective tissue matrix. There is another type of tumor, an adenoma, which has no bearing on the present subject, but is of great interest because of its relationship to the clinical entity of hyperinsulinism, since it is a tumor of the islet tissue. Malignancies of this organ may be large or small, and they metastasize regularly to the regional glands and the liver.

Squamous cell carcinoma of the pancreas has been observed on occasion, but it must be considered of rare occurrence. In 1896 Israel reported a case of a cancrroid of the

head of the pancreas in a woman of 50. There was an associated squamous cell carcinoma of the gall-bladder. (We have interpreted cancrroid as an epithelioma containing many pearls, and being of low grade malignancy.) Lewishon's case, in a man 67, was a carcinoma of the head of the pancreas which had destroyed the pancreatic duct and invaded the portal vein producing huge secondary deposits in the liver. This was a combined cylindrical cell and squamous cell carcinoma. It was also observed that the smaller ducts were lined by squamous epithelium rather than by the normal columnar epithelium. Herxheimer's case, in a woman 65, occurred in the middle and tail of the pancreas and showed both adenocarcinoma and cancrroid. In 1913 Askanazy and Jordanowa reported a case in a woman 49. Only the head of the pancreas was involved and the microscopic examination showed it to be a squamous cell carcinoma. There was atrophy and cirrhosis of the rest of the pancreas. Papadopoulos reported a case in a man 66 of combined adenocarcinoma and squamous cell carcinoma occurring in the head of the pancreas. There were metastases in the regional glands, the liver, the lung, and the pleura. Squamous epithelium was seen lining the ducts in some areas. The tail of the pancreas showed marked cirrhosis, but the island of Langerhans were numerous and well preserved.

Because of the infrequent occurrence of a pancreatic malignancy made up almost entirely of squamous cells, we are reporting the following case in its essential details. Since such a case can best be explained on the basis of epithelial metaplasia, a brief discussion of metaplasia will be included.

CASE REPORT

Mr. J. H., white, aged 69, was admitted to the Denver General Hospital, October 25, 1933. He had been a patient in the hospital in 1929 because of cardiac decompensation, and was readmitted in February, 1933, for a fractured scapula. At the time of his last admission he was again decompensated, complaining of weakness, cough, dyspnea and swelling of the lower extremities. Aside from his obvious cardiac disability there was noted a large mass in the left side of the epigastrium. There was no jaundice, and such digestive disturbances as were complained of could be attributed to his cardiac decompensation. X-ray examination indicated that this mass was lying outside of the stomach and colon and was

considered to be a pancreatic tumor. About two weeks after admission the abdomen was explored, but because of the poor condition of the patient and the extensive character of the mass encountered, he was closed again promptly. The patient died four days later. The routine laboratory investigation had not been enlightening, and it was of interest to note that there had not been any disturbance in carbohydrate metabolism. At autopsy, the most striking thing was the mass in the abdomen the size of a large grapefruit. This was a grayish white tumor, limited by and attached above to the under surface of the left lobe of the liver, and to the posterior wall near the greater curvature in the upper third of the stomach. The stomach was raised and pushed forward. It merged below with the pancreatic area, leaving only the lower border of the head and about 4 cm. of the tail of this organ to be identified as pancreas. The growth completely surrounded the vessels at the coeliac axis, and partially encircled the aorta. The duodenum was not invaded and the main ducts were destroyed. The tumor was pseudo-encapsulated, the cut surface thinly trabeculated, avascular, dry and crumbling. About the periphery, particularly where it had attached itself to the liver and stomach, the tumor was firm and apparently viable. There were no hemorrhages or areas of softening. All of the mass, except the margins noted, could be crumbled between the fingers not unlike dry bread. The regional glands were the only sites of metastasis. The heart weighed 300 grams. The mitral valve showed a calcified rheumatic endocarditis and the coronaries and aorta showed advanced atheromatous changes. Other organs and tissues in the body were approximately normal. The changes present were those consistent with the age of the subject. Microscopic examination of the tumor was striking. Numerous sections from widely separated areas were uniform in appearance. Wide strands and sheets of squamous epithelium were faintly outlined and stained a diffuse pink with the eosin, a widespread and complete keratinization, and the stroma had undergone a retrograde metamorphosis, probably hyaline, so that entire sections were homogenous. Only at the periphery of the tumor were growing cells demonstrated. At this point areas were observed that resembled a carcinoma simplex, but almost in the same field there would appear other groups of tumor cells with beginning pearl formation, and adjacent to them would be other tumor nests almost entirely keratinized with a thin margin of viable tumor cells. Ducts lined with metaplastic squamous epithelium were not observed in the marginal pancreatic tissue. There was much chronic interstitial pancreatitis in the remains of the organ and many apparently hypertrophic islands of Langerhans.

Discussion

Epithelial metaplasia has been observed in various localities in the body. The direction is usually from the columnar type to the stratified squamous type. One notable exception is seen in exstrophy of the bladder where the transitional epithelium changes to a columnar. Infection and chronic inflammation are almost constantly associated with epithelial metaplasia. The shift from the columnar to the squamous cell

occurs in the gall bladder under the influence of chronic inflammation, with or without calculi. The prolapsed uterus sometimes exhibits similar change. Zeller found epidermization of a chronically inflamed endometrium. In the larynx, cylindrical epithelium has been replaced by squamous, and squamous epithelium has been found in the nasal cavities and in the middle ear following purulent inflammation. In the trachea and bronchi, in the ducts of the pancreas, particularly in the presence of calculi, this phenomenon has been observed. The Japanese have reported several instances of metaplasia of the columnar duct epithelium in the pancreas to stratified squamous epithelium in association with infestation of the ducts by flukes. It has also been observed in cases of calculi and chronic interstitial pancreatitis, the ducts becoming almost completely filled with proliferating squamous epithelium. The instances occurring under the condition of avitaminosis will be mentioned.

The term metaplasia was introduced by Virchow to describe a condition in which there is a direct transformation of one type of differentiated cell into another which is architecturally different. Since this definition there has been much discussion as to the mode of change. A few of the more important of these are cited. Shridde termed Virchow's metaplasia "direct metaplasia" and considered it to be of secondary importance to his "indirect metaplasia." He suggests that newly formed cells of the growing layers of any kind of epithelium can undergo dedifferentiation and revert to a cell which has all the powers of differentiation possessed by the embryonic cells from which the epithelium developed. As growth proceeds, there is a redifferentiation to form a cell not identical with the original type. He further speaks of (1) real metaplasia, showing real character changes, and (2) prosoplasia, showing further differentiation in the already taken direction. For example, under the second heading he uses the keratinization of the border epithelium of the urinary passages. Lubarsch presents (1) pseudo-metaplasia, probably meaning the extension of one type of epithelium into a

region normally covered by another or the change in form of cells by pressure, (2) retrograde differentiation, explained as an increased power of growth or proliferation with concomitant loss of differentiation and function as is demonstrated in the anaplasia of growing tumors, and (3) real metaplasia as seen in tumors of the prostate consisting of squamous epithelium. Ribbert, however, holds to somewhat different conceptions of metaplasia. According to his theory such changes may come to be by (1) taking origin from cells which have actually been misplaced during embryonic life, or (2) from cells which appear normal for the region in which they occur, but which possess embryonic potentialities, and (3) also from cells which are only partially differentiated and for this reason undergo changes more readily. Whether these different points of view explain satisfactorily the phenomena of metaplasia is somewhat beside the point since there is ample evidence to demonstrate the many sites and some of the varying conditions under which it has been manifest.

As has been mentioned, metaplasia is frequently seen to occur in the presence of inflammation. This need not always supply the stimulus for this particular change. It has been noted during such simple regenerative efforts as follow the excision of a small piece of mucous membrane in the trachea of the rabbit. Wolbach and Howe have found replacement of various epithelia by stratified keratinizing epithelium following deprivation of certain vitamins, particularly vitamin A. They have mentioned one human case in which the epithelial changes in the pancreatic ducts were more striking than any seen in the experimental animals. They also noted many mitotic figures and a response of the part of the connective tissue and blood vessels sufficient to suggest the acquisition of neoplastic tendencies. In the light of these observations it is of interest to speculate on the possible effects of avitaminosis in the origin of some of the malignancies occurring in that period of life where restricted diet is imposed by the natural infirmities of advancing years.

Metaplasia in relation to malignant

growths is not an uncommon finding. Cholesteatoma is probably due to epidermization of mucous membrane. Squamous cell carcinoma has been observed in the nasal cavity, the trachea, bronchi, and lungs. Similar tumors due to metaplasia have been seen in the prostate, uterus, gall bladder, and breast. Undoubtedly, one of its rarest sites is in the pancreas.

There is no difficulty, in the reported case, in classifying the tumor as a primary one occurring in the pancreas. The obvious question concerning its genesis, however, can scarcely be answered with any degree of certainty. Two possible modes of development suggest themselves. First, that the tumor began or had its origin in the duct epithelium, and during its development underwent metaplasia to squamous epithelium. Or, due to one of the various influences that have been mentioned previously, metaplasia of the columnar duct epithelium to squamous epithelium occurred first, and the cancrioid type of tumor grew from the altered epithelium. We suggest the latter explanation because of the general characteristics of the growth, i. e., a slow growing, extensively keratinized cancrioid tumor lacking any definite glandular structures such as have been mentioned as occurring in the few reported metaplastic malignancies of the pancreas. This is of course pure conjecture particularly if, as has been stated, any type of epithelium can, under proper influences, undergo dedifferentiation to a type of cell analogous to an embryonic cell with its manifold potentialities for differentiation, and from this point redifferentiate into any one of several types of epithelium.

Summary

1. An extensively keratinized squamous cell carcinoma of the pancreas is reported. This is a rare tumor which is best explained upon the basis of epithelial metaplasia. The exact sequence of events is unknown in the development of the unusual condition.

2. Metaplasia has been noted in the pancreatic ducts in certain cases of chronic interstitial pancreatitis, with or without calculi; in other cases where the ducts have been infested with parasites; and in the con-

dition of avitaminosis. In these instances squamous cells have appeared because of metaplasia of the lining columnar epithelium of the ducts.

3. Metaplasia is a definite entity and is not confined to the pancreas. It has occurred in the uterus, gall bladder, nasal cavities, larynx, trachea and bronchi, middle ear and breast. Practically always it has been in association with inflammation.

4. Metaplasia may occur in epithelial or connective tissue, and it is generally held that the law of specificity is followed.

5. The exact cause of this transformation is not known.

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PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Extraordinary Health Record

In 1932, the United States achieved the lowest general death rate (10.8) in its existence, according to the sixty-second annual report of the Surgeon General of the Public Health Service for the fiscal year ended June 30, 1933. The report, which covers the one hundred and thirty-fifth year of the service, points out that, whatever influence distressing economic conditions may have had on the health of the people of the United States generally, unfavorable results are not yet apparent from an examination of the crude death rates, the reports of cases of communicable diseases, or deaths of infants. The smallpox death rate for 1932 was the lowest ever recorded by the service, four deaths in each ten million of population.

Forty-six states reported 10,887 cases, as compared with 28,755 cases in 1931 and 46,560 cases in 1930. Only one out of each seventeen babies died before the expiration of its first year, giving a new low rate for infant mortality. New low death rates were also reached for tuberculosis (61.3 per hundred thousand of population), diphtheria (4.8) and typhoid (4.6). Preliminary reports showed the birth rate for the year to be 17.3 births per thousand of population, indicating a continued decline. No unusual widespread epidemics occurred, and the principal increases in the death rates were for cancer, heart disease and other so-called degenerative diseases, the death rates of which have been increasing for years.—*Journal A.M.A.*

The Incidence of Venereal Disease in the United States

If the incidence of venereal disease can be reduced by adequate sex education, a large proportion of our population would be protected against a very important cause of mental deterioration. According to Vedder, 20 per cent of the young adult males of the population of the class from which the army was recruited are infected with syphilis and 5 per cent of the young men in colleges. The syphilis rate for the country is generally represented as 4.77 for the males and 3.07 for the females, with the highest prevalence among young adults twenty to twenty-five years of age. What is more significant for the welfare of the people is that syphilis permeates all strata of our population. The statistics of the American Social Hygiene Association, based upon blood tests, show figures varying from 1.4 per cent for farmers to 3.2 per cent for merchants and tradesmen, 6.1 per cent for laborers, and 11.7 per cent for railroad employees as recorded at the Mayo Clinic. Stokes and Brehmer assert that 26 per cent of syphilitics become infected between the ages of seventeen and twenty years and 32 per cent between twenty and thirty-five years of age. According to the studies of Newsholme, 10 per cent of all admissions to the state hospitals for the insane are due to general pa-

resis. If syphilis is present in the general population to the extent of 10 per cent, the potential hazards to rational mental function are severe. To state that each year the United States presents a minimum of 679,000 new cases of gonorrhea and 423,000 new cases of syphilis is a sharp challenge to the intelligence of communities that employ every effort to educate the public concerning diseases like rabies, tuberculosis, and typhoid fever. These diseases are relatively negligible in their effects upon somatic and psychic well-being compared with the absolute and relative ravages of the venereal diseases.—From *American Journal of Public Health*, March, 1934.

Clean Milk and Safe Milk

Clean milk is milk which has been produced and distributed with the minimum amount of extraneous contamination such as manure from the cow's udder and flanks, dust from the cowshed and dairy, and dirt from the milker's hands, utensils, and milk containers. When care is not exercised, such contamination readily occurs and dirty milk results. Dirty milk is not only esthetically objectionable, but it also has poor keeping qualities, and for this reason alone reputable firms are anxious to obtain their supplies as clean as possible. Even if the dirt in milk contains no pathogenic organisms, the conditions which lead to dirty milk also favor contamination with any pathogenic organisms which may be in a position to gain access to the milk.

It must be noted, however, that a clean milk is not by any means necessarily a safe milk. Milk obtained from a herd infected with tuberculosis or contagious abortion is never safe, no matter how cleanly it may be procured. Cleanliness of the general milk supply is desirable but cleanliness is not enough.

To insure its safety, that is to say, its freedom from pathogenic organisms, pasteurization is essential.—J. M. Hamill, M.D., *American Journal of Public Health*, March, 1934.

BOOK REVIEWS

The Medical Clinics of North America. Vol. 17, No. 3. Philadelphia Number. Nov., 1933.

The greater part of this number of the clinics is given over to discussions of diseases of the heart and blood vessels and to various forms of anemia and other conditions of the hemopoietic system, such as Aleukemic Reticulosis and Lymphoblastomas, showing a growing interest and better understanding of these conditions. There is a timely paper on Epidemic Encephalitis Lethargica with a report of the St. Louis epidemic of 1933. Another interesting paper deals with a new approach to the possibilities of bronchial disinfection and immunization. There are also interesting discussions on Chloroform Poisoning, Hypo-Pituitary Endocrinopathies, Basal Tuberculosis, and Diabetes Mellitus.

The Medical Clinics of North America. Vol. 17, No. 4. Cleveland Clinic Number. Jan., 1934.

This number of the clinics contains six articles on various phases of endocrine disturbances. The very widespread influence of the physiologic and pathologic physiologic effects of these glands is becoming more apparent constantly. There are two practical articles on chronic rheumatoid arthritis, a number of clinics on different types of diseases of the gastrointestinal tract, and also several kidney lesions are discussed.

A very timely article on the ocular muscles as a medical problem is presented showing the overlapping of ophthalmology with other branches of medicine. This is true, not only of eye conditions, but emphasizes the importance of the other specialties to the internist in making a diagnosis.

LORENZ W. FRANK.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M.D., visiting physician, Johns Hopkins Hospital, Baltimore, Md. With the collaboration of Francis Gilman Blake, M.D., Yale University, New Haven, Conn.; Vernon C. David, M.D., Rush Medical College, Chicago, Ill.; Dean Lewis, M.D., Johns Hopkins University, Baltimore, Md.; John W. McNee, M.D., University College Hospital, London, Eng.; John H. Musser, M.D., Tulane University, New Orleans, La.; Walter W. Palmer, M.D., Columbia University, New York, N. Y.; Dr. Pasteur Vallery-Radot, University of Paris, Paris, France; Arthur L. Bloomfield, M.D., Stanford University, San Francisco, Calif.; Campbell P. Howard, M.D., McGill University, Montreal, Canada; W. McKim Marriott, M.D., Washington University, St. Louis, Mo.; George Richards Minot, M.D., Harvard University, Boston, Mass.; Charles C. Norris, M.D., University of Pennsylvania, Philadelphia, Pa.; E. Rehn, M.D., University of Freiburg, Germany; Russell M. Wilder, M.D., The Mayo Foundation, Rochester, Minn. Volume IV. Forty-third series,

1933. Philadelphia, Montreal, London: J. B. Lippincott Company. 317 pages.

This volume presents seventeen articles on subjects of medicine, endocrinology, surgery, dermatology and an interesting case report from the clinical and pathological conference. The medical subjects offer such valuable and useful information as the treatment of obesity, with specific instructions; description and etiology of the cerebral manifestations of high blood pressure; rationale and practical aspects of the serum treatment of pneumonia, with indications, dosage and technic of administration. The unusual is represented in case reports of carcinomagenic gastrocolic fistula and one case of acromegaly associated with obesity, arterial hypertension, polyglobulia, eosinophilia, and partial paresis.

The section on endocrinology is made worth while by the first article alone which details "the surprisingly versatile picture of hypothyroidism" and instructs in the proper use and control of thyroid therapy. The memory is refreshed and new knowledge acquired by reading the other articles concerning parathyroid hormone, organotherapy of pituitary diseases, clinical effects of insulin, diseases of the suprarenal glands, and finally a summary of organotherapy in gynecological endocrinology.

The surgeon will be interested in the lucid account of Paget's disease of the nipple, with photographs and photomicrographs, and in these subjects: Diagnosis of Brain Tumors and Treatment of Pigmented Moles. Appeal to pediatricians is made by two monographs: Diseases, Malformations, and Injuries of the Mouth in Children, and the Significance of Dental Disturbances in Children.

The clinical pathological conference report gives a very interesting differential diagnosis and discussion of a case of rupture of the aorta with aortic insufficiency. The volume is concluded in a report of the recent progress in dermatology with Lupus Erythematosus Disseminatus as the principal subject.

From this cursory review it is evident that this volume is worthy of the attention of nearly all physicians.

A. M. WOLFE.

Laboratory Medicine. A Guide for Students and practitioners. By Daniel Nicholson, M.D., member of the Royal College of Physicians, London; Assistant Professor of Pathology, University of Manitoba; Assistant in Pathology, Winnipeg General Hospital. Illustrated with 124 engravings and 3 color plates. Second Edition, thoroughly revised. Philadelphia: Lea and Febiger. 1934.

This book is intended not so much for the clinical pathologist as it is for the practitioner of medicine, because it attacks the problem of laboratory diagnosis from the latter's standpoint, asking in any given case, "what tests shall I run," and "what do the laboratory findings in this case mean." I know of no other book on this subject that accomplishes this so well. Thus the author details the laboratory tests that will aid in the detection of obscure causes of prolonged fever, the causes of loss of weight and strength, the detection of anemias, how to proceed in detecting the cause of ulcerations of the mouth and throat, laboratory tests to help detect the cause of dyspnea, indications for blood chemical test, laboratory aid to determine the cause of acute abdominal tumors from the laboratory standpoint, how to investigate the cause of chronic diarrhea and constipation, choice of tests for renal, liver

and genital function, diagnosis of pregnancy and of genital infections, cutaneous sensitization tests, laboratory aid in the diagnosis of certain skin diseases, the laboratory procedures in the diagnosis of various nervous disorders, such as vertigo, tremors and convulsions, alterations in emotions and mentality, insomnia, drowsiness and comatose states. These are the type of questions that the clinical pathologist is asked daily by the generalist and the specialist.

The technical details of the conduct of tests are complete in every respect. The only technic that has not been gone into in complete detail is that of the Wassermann and of vaccine preparation.

A number of the newer laboratory procedures have been added to this second edition such as the cough plate method for the diagnosis of whooping cough, pneumococcus typing by the rapid capsular reaction, intradermal tests for echinococcus infection, examination of synovial fluid, and the histamine test to evaluate circulation in the lower extremities, and so on. There is a good chapter on the basal metabolism test and others on the removal and staining of biopsy material and the technic of blood transfusion.

The illustrations, including a colored blood plate are good. There is a table covering five pages on the differential diagnosis of the cerebrospinal fluid. The printing and binding are excellent.

OTTO S. KRETSCHMER.

Nature, M.D. Healing Forces of Heat, Water, Light, Electricity and Exercise. By Richard Kovacs, M.D., Clinical Professor of Physical Therapy, Polyclinic Medical School and Hospital, New York. New York and London: D. Appleton-Century Company, Inc., 1934. Price \$2.00.

This is an addition to the Appleton Popular Health Series, treating of the healing forces of heat, light, water, electricity, and exercise. Its purpose is to explain the facts of physical therapy to a public which needs this knowledge. The author repeatedly stresses the necessity of medical diagnosis and guidance. It explains the physical and physiological facts in a clear manner which should enable the reader to protect himself against the fraudulent claims of quacks.

It is suitable for recommendation to patients; it will assist the cultivation of a sane health consciousness.

The Surgical Clinics of North America. Chicago Number. Volume 13, Number 5. October, 1933. W. B. Saunders Company.

The Chicago number of Surgical Clinics of North America for October, 1933, treats most carefully many valuable subjects. The most remarkable of these are "Cystic Tumors of the Neck in Childhood" by Dr. Raymond McNealy, "Intussusception," by Dr. Albert Montgomery, and "Congenital Dislocation of the Hip," by Dr. Fredmont Chandler. However, every article is of interest, particularly those dealing with the surgical diseases in children.

The Surgical Clinics of North America. Volume 13, Number 6. Pacific Coast Surgical Association Number. December, 1933. W. B. Saunders Company.

The Pacific Coast Number of Surgical Clinics of North America for December, 1933, consists of many interesting case reports. Among these is an interesting article entitled "Treatment of Cervical Spine Dislocation" which is indeed ex-

cellent. Another article by Drs. Butler & Guinan on the "Repair of Stensen's Duct" is of value. This number further contains a most excellent review of "Polyposis of the Colon," by Drs. Chandler & Newell.

DUVAL PREY.

Treatment of the Commoner Diseases. By Lewellys F. Barker, M.D., Professor Emeritus of Medicine, Johns Hopkins University; Visiting Physician Hospital, Baltimore, Mr. Philadelphia: J. B. Lippincott Co. 1934.

This is a handy reference book for the general practitioner. Though the title implies attention mainly to the commoner disorders, it handles also those which to the practicing physician are rare. It is by no means limited to treatment. The book covers too wide a field to be considered complete; any special subject would require other reference. However, it is up to date and practical. The author may be criticized for the use of proprietary names for many of the drugs recommended.

Since our larger text books of medicine seem to emphasize phases of disease other than treatment, this book makes a useful supplement when refreshing one's knowledge on a chosen subject.

Surgical Clinics of North America. (Issued serially, one number every other month). Volume 14, No. 1. (Philadelphia Number—February, 1934). 226 pages with 62 illustrations. Per Clinic Year (February, 1934, to December, 1934.) Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company. 1934.

This volume contains twenty-six articles by twenty authors, most of which are in the nature of case reports.

There is a brief symposium on foreign bodies in the gastro-intestinal tract discussed from the standpoint of the surgeon, the roentgenologist, and esophagoscopist.

Much is seen in the recent literature on pilonidal sinuses and cysts, and the present volume contains an excellent article on this subject by Dr. Owen, with a review of forty cases. Duodenal drainage for intestinal obstruction—concerning which there has been so much repetition recently—is again discussed in detail.

There is a splendid paper by Ryan on gall bladder disease and its differential diagnosis. While this discussion contains nothing new, it is extremely concise and well worth while.

JOHN M. FOSTER, JR.

The Young Man and Medicine. By Lewellys F. Barker, M.D., LL.D., Professor Emeritus of Medicine, Johns Hopkins University. Edited by E. Hershey Sneath, Ph.D., LL.D., Yale University. New York: The Macmillan Co. 1928.

Here is a book which should be placed in the hands of every medical student, intern, and young physician. It contains the retrospect, insight, and foresight of a veteran teacher. The wisdom of experience and pertinent philosophy are compounded into an analysis of every important phase of the science and practice of medicine. Every sincere physician will appreciate the ideals which are so helpfully expressed in this volume.

The personal requisites for the successful doctor, the preliminary education, choice of a medical school, scientific study, side reading, licensure, choice of a location, postgraduate study—all are adequately discussed. The rewards and satisfactions of medical workers, intellectual possibilities,

ethical and social considerations, and esthetic potentialities are extremely inspiring.

After enjoying this book yourself, place it in an accessible place for the use of your own son when he wonders whether to study medicine, or for the youth who needs such advice!

A Guide to Human Parasitology. For medical Practitioners. By D. D. Blacklock, M.D. (Edin.); D.P.H. (London); D.T.M. (Liver.). Professor of Parasitology, Liverpool School of Tropical Medicine, the University of Liverpool, and T. Southwell, D.Sc., Ph.D., Lecturer in Helminthology, School of Tropical Medicine, Liverpool. 271 pages. 2 color plates and 122 illustrations. Baltimore: The Williams & Wilkins Co. 1932.

This guide is the result of many years of teaching in the field of parasitology by the co-authors, and their work has materially enhanced the high standing of the Liverpool School of Tropical Medicine. It is not exhaustive but appears to cover the more common animal parasites for man.

A difference in terminology can confuse the student when comparing this book with writings in this country. Unfortunately there is not an international uniformity of descriptive terms for the various forms of animal life, and to some readers this will be very apparent. The authors have used the old nomenclature and do not for example subdivide the genus *Spirochaeta* into *Borrelia*, *Treponema* and *Leptospira* to which we have become accustomed. However in the heading of each species they have given the more common synonyms.

The numerous tables throughout the book should have an especial appeal to the student. At the end of each chapter which terminates a class the table given lists the more common human parasites of that class and their most prominent characteristics. The "Diagrams Illustrating Life-Histories" for many of the common parasites emphasize the value of pictorial descriptions in instruction. These outlines should clarify the life cycles of even the complex types.

The entire volume is filled with authoritative knowledge in its field and will be valuable to any who use it.

E. R. MUGRAGE.

VENEREAL DISEASE INFORMATION

For a number of years the U. S. Public Health Service has been publishing, for the information of physicians, health officers, and others, a monthly abstract journal known as "Venereal Disease Information." This publication contains usually one original article on a subject of general interest in connection with the venereal diseases and numerous abstracts from the current literature pertaining to these diseases. In the preparation of this abstract journal more than 350 of the leading medical journals of the world are reviewed and abstracts made of the articles on this subject.

The cost of "Venereal Disease Information" is only fifty cents per annum, payable in advance to the Superintendent of Documents, Government Printing Office, Washington, D. C. It is desired to remind the reader that this nominal charge represents only a very small portion of the total expense of preparation, the journal being a contribution of the Public Health Service in its program with state and local health departments directed against the venereal diseases.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

Meetings—Our Own And the A. M. A.

SCARCE six weeks hence the Annual Session of the American Medical Association opens in Cleveland. Attendance from the West should be augmented this year, as it was last, by the fact that the World's Fair re-opens June 1 in Chicago and by the railroad rates which are even lower than the attractive World's Fair rates of last year.

In the same way as was done the last three years, the Executive Office of your State Society will assist members in their arrangements, reservations, etc., when called upon. Should a sufficient number be able to leave together, a special car from Denver will be arranged. Such an arrangement does not necessitate a doctor's returning in the special should he wish to stop over in Chicago or elsewhere.

Whether you drive, go by rail, or even fly, please let the Executive Office know your plans for attending the A.M.A. It helps the State Society to help you.

Farther ahead we look to our own State Meeting, called for September 20, 21, and 22 in Colorado Springs (the House of Delegates will meet just preceding the main session, on the evening of September 19). Everyone should set aside these dates. Now, even this early, those planning exhibits should notify the Exhibit Committee so that appropriate space may be set aside. Dr. D. W. Macomber, 530 Republic Bldg., Denver, is Chairman of this Committee. Essayists who have not yet submitted abstracts of their papers should do so at once, sending them to the Chairman of the Committee on Scientific Work, Dr. Kenneth D. A. Allen, 452 Metropolitan Bldg., Denver. Members who have suggestions for improvement over previous meetings should also get in touch with these chairmen, or with Dr. John B. Hartwell, 324 Burns Bldg., Colorado Springs, who is Chairman of the Arrangements Committee.

It will be a great meeting—it is not too early to know that, for many important details are already completed, such as the smoker (absolutely stag!) for Thursday evening with a concurrent bridge party for the ladies, such as the operative clinics, bedside clinics, and skin clinics—taking a page from the successful experience of the Denver Midwinter Clinics and the Pueblo Spring Clinics, such as the new banquet plans and the seminars. But we are not allowed to tell more,

at this stage of proceedings. Just remember that there are not only the regular committees, but several additional special ones working months in advance to present the outstanding State Meeting of this generation. The writer believes they will do it. So make your plans now.

SPOTTED FEVER VACCINE

The following communication from Dr. S. R. McKelvey, Secretary of the Colorado State Board of Health, is important at this time of year:

"Will you please announce in the next issue of Colorado Medicine that there is now in the office of the State Board of Health a supply of spotted fever vaccine for use among Denver physicians?"

"I am authorized to say that the Officer in Charge, Spotted Fever Laboratory, U. S. Public Health Service, Hamilton, Montana, desires that all physicians outside of Denver secure needed vaccine directly from him. There is no charge for this vaccine, which is to be distributed when needed through physicians only."

MEDICAL SOCIETIES

COLORADO OPHTHALMOLOGICAL SOCIETY

February 17, 1934

DR. W. M. BANE, PRESIDING

Dr. William C. Bane presented a case of lacerating wound of the conjunctiva and sclera; rupture of the choroid.

Dr. R. W. Danielson presented a case of bilateral ectopia pupillae and lentis.

Dr. R. W. Danielson also presented a case of familial macular degeneration without cerebral changes in a young man and his sister.

Dr. William M. Bane reported a case of glaucoma following cataract extraction.

GEORGE H. STINE,
Recorder.

COLORADO SOCIETY OF CLINICAL PATHOLOGISTS

The regular meeting of the Colorado Society of Clinical Pathologists was held April 21, 1934, at the Colorado Medical School.

In the afternoon there was a Tissue Study Conference devoted to "Pathology of the Thyroid Gland," under the direction of Dr. Wm. C. Black and Dr. George Williams.

Following dinner the regular meeting was held. Dr. Richard Whitehead gave an illustrated lecture entitled: "Newer Advances in Endocrinology." The Society adjourned to meet again in October.

PAUL D. GARVIN, M.D.,
Secretary.

BOULDER-LARIMER

The Boulder County and Larimer County Medical Societies held a joint meeting Wednesday, April 4, at the Loveland Country Club to hear one of the cancer symposium teams representing the State Society. Dinner was served at the club at 6:30. Dr. G. R. Hageman, President of the Boulder County Society, presided over the joint meeting, which was attended by forty-three members of the two societies. At a brief business session of the Boulder County group Mr. H. T. Sethman, Executive Secretary of the State Society, discussed the present status of the CWA and FERA medical activities, and the Society adopted the report of a special committee insisting upon payment of 70 per cent of minimum fees for FERA work. The symposium on "Cancer of the Breast" was presented by Drs. W. D. Haggart, surgeon, W. S. Dennis, pathologist, and F. E. Diemer, radiologist, all of Denver, and was discussed by several members of both societies. Dr. Lyman W. Mason, chairman of the State Society's Committee on Cancer Education, discussed the aims of the State Society in presenting such symposia before all county societies this year.

M. L. JOHNSON,
Secretary, Boulder County.
L. D. DICKEY,
Secretary, Larimer County.

* * *

CROWLEY COUNTY

The regular meeting of the Crowley County Medical Society was held in Dr. W. M. Desmond's office at Ordway, April 11. Dr. G. M. Baker of Rocky Ford was the principal speaker. He discussed "Orchitis; Its Cause and Treatment."

J. A. HIPP,
Secretary.

* * *

DENVER COUNTY

The Staff of Mercy Hospital presented the scientific program for the first April meeting, held April 3 in the Hospital's auditorium. At a short business session, Drs. Robert William Gordon and Leo Lloyd Davis were elected to membership and Dr. Leo A. Conway, formerly of Colorado Springs, was accepted on transfer from the El Paso County Medical Society. A committee composed of Drs. R. P. Forbes, James Walton, and John Robb was appointed to investigate the increase in reportable diseases for the first three months of this year over the corresponding 1933 figures. Dr. Robert Shea, president of the Mercy Hospital Staff, then took the chair, with Dr. A. J. Chisholm as secretary. "Otogenic General Sepsis" was presented by Dr. T. E. Beyer; "Neoplasm of the Breast and Breast Surgery" was given by Dr. W. W. King, and both papers were generally discussed. Seventy-two members of the Society attended the meeting.

Drs. Ruben Gustafson and F. E. D'Amour of the faculty of the University of Denver were guest speakers at the April 17 meeting, held in the auditorium of the Capitol Life Insurance Company. Dr. Gustafson gave an illustrated talk on "Recent Studies in Human Sex Cycle," and Dr. D'Amour talked on "Some Recent Hormone Studies During Pregnancy." The papers provoked wide discussion. Preceding the scientific part of the program Dr. Harry Louis Friedman was elected to membership and a resolution was read, for later action, proposing an amendment to Section 2, Article 7, of the by-laws.

Another milestone in the history of the Medical Society was passed on the evening of April 4,

1934. At that time Dr. Robert Levy completed fifty years of medical practice. The occasion was celebrated by a banquet at which one hundred seventy friends paid tribute to Dr. Levy's Golden Jubilee.

Following an excellent dinner, Dr. W. W. King presented Dr. Leonard Freeman as Master of Ceremony. Dr. Freeman introduced in turn Dr. J. N. Hall, who spoke in feeling terms of his fifty years association with Dr. Levy.

Dr. C. E. Cooper gave a brief chronological resume of Dr. Levy's activities and accomplishments, emphasizing the love and respect in which Dr. Levy is held by his colleagues and in particular by those physicians in his own field of otolaryngology.

Dr. J. W. Ames, in a very graceful manner, on behalf of a number of Dr. Levy's friends, presented to the Medical Society an oil portrait. Dr. Frank Kenney, in an equally appropriate manner as chairman of the Board of Trustees, accepted the gift for the Society.

During the evening Dr. Freeman called upon the secretary to read and acknowledge a great number of communications—cables, wires and letters from all parts of the country. These messages unanimously expressed regret of the senders' inability to be present, and the extension of congratulations which Dr. Levy so richly merits.

Some Data Concerning Dr. Robt. Levy

Born May 30, 1864, at Hamilton, Ontario. Came to Denver in 1879 and entered University of Denver. In 1881 matriculated at Princeton but changed his mind and entered Bellevue Hospital Medical College at the age of eighteen. Graduated March 13, 1884, and immediately became a general practitioner in Denver. In 1889 he began the practice of his specialty—otolaryngology. He was the second specialist in that field of medicine in Denver, being preceded only by Dr. H. H. Howland. He has been a prolific and valuable contributor to the literature of otolaryngology, as is proved by his publication of sixty-one papers.

He is well known both here and abroad. President, American Otological, Rhinological, and Laryngological Association, 1915. He at one time was President of the Colorado State Medical Society and also the Denver County Medical Society. He was one of the founders of the Denver Clinical and Pathological Society in 1892, of which he has been three times its President. He has served on the staff of every major hospital in Denver and has long been professor and head of the Department of Otolaryngology of the Medical School of the University of Colorado.

O. S. PHILPOTT,
Secretary.

EL PASO COUNTY

The April meeting of the El Paso County Medical Society was held April 11, at 7:45 p. m., in the Auditorium of the Union Printers Home. Dr. William J. Thomson was elected to membership.

Members of the society gave an interesting scientific program. Dr. A. L. Briskman presented illustrative cases of "Arterial Hypertension; Its Prognostic Significance." Dr. Bernard Gloeckler presented illustrative cases of "Multiple Sclerosis," Dr. Frank T. Stevens discussed "Differential Diagnosis in Multiple Sclerosis," and Dr. V. H. Brobeck talked on "The Eyes in Multiple Sclerosis." Dr. W. A. Smith presented "Healed Case of Laryngeal and Pharyngeal Tuberculosis," and Dr. Charles O. Giese presented two case reports.

CARL S. GYDESEN,
Secretary.

FREMONT COUNTY

The Fremont County Medical Society met March 26 at the State Penitentiary in Canon City. Dr. R. E. Holmes showed the Society through the Penitentiary Hospital and discussed several interesting clinical cases. Dr. C. E. Webb of Canon City was the principal speaker. He presented "Examination of the Eyes of School Children."

The proposition of the FERA, as provided in its present fee bill, was considered and rejected by a large majority of the Society.

ARCHIE BEE,
Secretary.

* * *

MESA COUNTY

Dr. G. G. Feldman and Dr. G. E. Jones were the guest speakers at the regular meeting of the Mesa County Medical Society held March 20 at the La Courte Hotel in Grand Junction. Dr. Feldman presented "Surgical Aspects of Undulant Fever," and Dr. Jones "Vincent's Infection."

Members from the Garfield County Medical Society and the Dentists from Grand Junction were guests of the Medical Society at this meeting.

Drs. G. G. Feldman and D. M. Maxwell were elected to membership at this meeting.

FRANK J. McDONOUGH,
Secretary.

* * *

NORTHEAST COLORADO

Dr. C. I. Tripp of Sterling presented a very interesting paper on "Viruses" at the April meeting of the Northeast Colorado Medical Society held April 12 in Sterling.

E. P. HUMMEL,
Secretary.

* * *

PUEBLO COUNTY

The first April meeting of the Pueblo County Medical Society was held at the Hotel Congress, April 3, at 7:00 p. m. Dr. G. E. Rice gave an interesting talk on "Treatment of Ruptured Appendix."

Dr. R. E. Davis was the principal speaker at the second April meeting, held April 17 at the Congress. Dr. Davis spoke on "Onchocerciasis."

J. L. ROSENBLOOM,
Secretary.

* * *

WASHINGTON-YUMA COUNTIES

The FERA medical aid was discussed at some length at the regular meeting of the Washington-Yuma Counties Medical Society held at the Yuma Hotel in Yuma, April 3. A committee was appointed to investigate the matter further and to report at the next regular meeting.

L. D. BUCHANAN,
Secretary.

After years of medical practice in Denver, with offices in the Metropolitan Building, Dr. Miller had retired to Salt Lake City.

WOMAN'S AUXILIARY

ANNUAL DINNER-DANCE

The Denver County Auxiliary held its annual dinner-dance at the Lakewood Country Club on April 21. A more suitable and picturesque environment could not have been selected.

Following a splendid dinner the speakers were duly aware that good music awaited us, and music and dancing seemed more suited to the occasion than speaking, however good. Hence, the talks were short and the dancing long. Attendance was good, especially of the younger physicians and their wives. But those of all ages enjoyed the spacious hall.

We are glad this function has become an annual affair. Each year shall find it bigger and better—as the depression lifts and as the good time is more and more discussed.

HYGEIA

Highlights From the March and April Issues

Physicians' wives! Keep posted on these interesting articles for the enlightenment of the public.

Physicians! Don't let it be said by your patients that they have never heard of Hygeia, the Health Magazine!

MARCH ISSUE:

"What Shall a Man Believe?" About advertising of mouth-washes and dentifrices.

"Plumbing and Health." An editorial on amebic dysentery.

"Cancer—Its Status Today." Answers the many questions in the minds of the laity.

"Keeping the Underweight Child in School."

"The Child Who Stutters."

These and other excellent articles for parents are found in Hygeia.

APRIL ISSUE:

"What You Should Know About Tuberculosis." Urges the general public to the daily application of preventive measures.

"Abdominal Pain." The vital importance of early diagnosis.

"Sex Education—Education in Relation to the Family." A fine article that will interest everyone.

"How, When, and Why to Exercise." Patients should read this in place of unauthentic "culture" magazines.

"The Housewife Looks at the Committee on Foods." A much-needed service.

MRS. RALPH W. DANIELSON.

Hygeia Chairman.

Obituary

Samuel Warren Miller

Dr. Samuel W. Miller, an honorary member of the Denver County Medical Society and associate member of the Colorado State Medical Society, died at the home of his daughter, Mrs. Frank Dubois, in Salt Lake City on April 10, 1934. Also surviving him is a son, Dr. Samuel W. Miller Jr., of Altoona, Pa., and his widow, Mrs. Anna W. Miller. Dr. Miller Jr., received his education at the University of Colorado.

WYOMING SECTION

President, F. L. Beck, Cheyenne

Vice President, J. L. Wicks, Evanston

Secretary, Earl Whedon, Sheridan

President-elect, H. L. Harvey, Casper

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne

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EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Federal Relief Work

IT is gratifying to know that with the many changes that are being made in C.W.A. and general relief work very few of the administrative plans made and put into operation in Wyoming require modification.

What difficulties have arisen in administering medical relief have apparently occurred because the local relief officer did not understand the rules by which he was governed and in some cases was afraid to do anything lest he be guilty of infraction of the rules.

To all who have read Rules No. 7 of the F.E.R.A. it has been plain that general community needs from a medical standpoint were not going to be touched and that if anything more than a few cases here and there were to have any attention the rules must have a broader application or the local communities must enter into the project far more actively than they have done heretofore.

The administrators of federal relief in Wyoming since the exit of the C.W.A. are broad-minded men and women, and together with them the members of the advisory committee of the State Medical Society are working to develop plans whereby the medical needs of all indigent families may be cared for under the plans already set up. Since federal funds may be used only in emergency cases it is evident that reciprocal relations must be arranged whereby state and local funds may be utilized to care for other cases.

The officials of several of the more pop-

ulous counties have already signified their willingness to cooperate in such a plan.

It is expected that by the time this journal reaches you complete details will have been formulated and will be ready for general adoption. There will be nothing compulsory about the plan. Its operation in each county will depend on the desire of the people and the physicians of that county to make use of its provisions. That it will be advantageous to both seems quite evident.

F. L. B.

F.E.R.A.—An Analysis From the Medical Viewpoint

THE letters F.E.R.A. stand for Federal Emergency Relief Administration, but there seem to be many wrong interpretations of one of these words. The first letter "F" stands for Federal, our own National Government or Uncle Sam. That is easily understood. "E" means Emergency and is the word most abused. It is used as an adjective by the majority and applied in a wrong way to the word that follows it. It should not be so used. It, Emergency, should stand for the economic condition of the people of the United States at the time this act was passed. We were all depressed, "down and out" in our western lingo. Everyone was down and out regardless of the amount of property he owned. There is no question that we were passing through a tough time, an emergency.

Now let us get it clear in our minds that the F.E.R.A. was created by the President and Congress for this special time and because of the condition of all the people of our own United States. An emergency had

overtaken us. We were not as we generally were, so special efforts were to be made by the government to enable us all to meet the condition. It was not set up simply to help the pauper, the man who never has and never will do a day's work. It was intended to help every class of American. The Banks, Railroads, Life Insurance Companies and all other businesses were suffering by reason of the emergency, and they all needed the next letter, "R," which stands for Relief.

"Fine" you say, and so do we all, if the people who are at the head of the administration of this act only understood the proper use of that word Emergency. It is the misconstrued word. In place of applying this word emergency to the condition we are all facing, the administrators and their superiors are using the word as an adjective to modify the word "Relief." As a specific example: In rendering aid to the sick the term Emergency is applied to the conditions of the patient, as (Quoted from the Wyoming Administrator's interpretation of Regulation Number Seven) "For the purpose of clarifying an apparent misunderstanding as to the proper use of Federal Emergency Relief Administration funds for medical care for recipients of unemployment relief under Federal Emergency Relief Administration Rules and Regulations Seven, please be advised as follows: (A) Only Emergency cases or acute conditions endangering life or earning power arising during chronic illness, may be made the subject of medical relief and paid for by F.E.R.A. Funds. (B) Average cases involving defects, such as enlarged tonsils, adenoids, defective eye, ear, nose, throat and any similar chronic condition, not endangering life or earning power and not requiring emergency treatment, are not to be treated and will not be paid for from F.E.R.A. Funds."

In other words, the real meaning of the word Emergency is taken away from the condition of all of us and applied in a limited sense never intended. Consequently we doctors cannot be paid for our services to these people who are receiving relief from the national government unless they are about to die. They can get flour, clothing,

rent, and Lord only knows what all, but when it comes to medical and surgical relief they must wait until their lives are actually endangered before the aid of the doctor can be paid for by the same fund that so readily buys the clothes, food and other helpful things. The family that needs flour, meat, and rent, needs to have the teeth of the children attended to. The child that can not see the blackboard at school needs suitable glasses. The child whose tonsils are so diseased that he is sick every few days is entitled to medical and surgical care.

All these things are denied by the Relief Administrators, yet cod liver oil is purchased and distributed to all so-called under-nourished children, simply because some social worker thinks that every child of eight should weigh a certain number of pounds, regardless of its parentage. You can't expect a three-months-old Jersey to weigh as much as a Hereford calf of the same age. A Clydesdale colt weighs more than a Kentucky thoroughbred of a corresponding age. They just naturally do, and it would be foolish to give the racing breed cod liver oil and expect them to look and weigh like a Clydesdale.

The medical profession resents the spending of millions of dollars on airports and painting of Court Houses, and yet refusing to allow the doctors to aid our most important crop, the children. All the families receiving Federal Aid should be given such medical, surgical and dental attention as they need just the same as food, clothing, shelter and the other necessities of life, and not held down to cases in which life is at stake or earning power of old men interfered with. Children today have no earning power, but some day they will have to pay the bills created in this emergency and the toothless old men who never paid a cent will then be sleeping under the daisies. Why not spend all that is necessary to make these children healthy, so when the time comes they can pay their share of the vast amount of money now being expended? The parents of Wyoming ought to insist on drastic changes in the way Relief Funds are being used. Give the children a square deal!

E. W.

Protest

WYOMING doctors are not satisfied with the agreement made by an unauthorized committee of the Wyoming State Medical Society with the Relief Administration. In the absence of a meeting of the House of Delegates of the Wyoming Society, the Council alone has authority to make agreements binding the members of the Society. Our Honorable President, Dr. F. L. Beck, acted in good faith when he appointed a Cheyenne committee of three most respected physicians to consider the question of fees to be charged for cases referred by the F.E.R.A. But neither this committee nor the President consulted the Council, or the membership at large, before agreeing to a 50 per cent schedule for all relief cases. This Committee had no authority to bind the members to a 50 per cent agreement. Such an agreement is unfair and unjust.

The Government does not ask the local merchant to sell a shovel, a sack of flour, or a pair of shoes for one-half the normal price. It is not right to ask the doctor to do what is not asked of other classes rendering services. We resent such treatment. We demand that we be paid the usual fee as charged poor cases in our respective counties. The C.W.A. paid full fees all over the United States, and we object to being compelled to accept 50 per cent of a fee already inadequate. Inadequate, because all statistics show that it actually costs the doctor more than 50 per cent of his income to give medical care. Fifty per cent does not give the doctor one cent of profit for his services.

How can we charge our regular fee to the "white collar" worker and yet charge the greatest and richest government in all this world only 50 per cent? Surely this is not the correct conception of a "New Deal." We demand that this so-called agreement be cancelled and that we be treated as fairly as all other classes of citizens. The present schedule does not bring us the treatment we are entitled to receive.

Skilled and common laborers are being paid even larger wages than they received before the "emergency," yet doctors are

asked to accept 50 per cent for their skilled services and to give 100 per cent in return. We shall carry this problem to the President of the United States if necessary. E. W.



The Casper Meeting

IT is gratifying to have requests for places on our July program coming in as they are. An interesting variety of papers is already in sight. We know of others in preparation. Tick fever will have a prominent place.

Casper will provide an interesting clinical program. Social affairs, college luncheons and play will not be forgotten, but will not make up the heavy part of the feast.

There is still room for a few more papers. Let us have your title at once. Too long a delay means the programs will be printed without yours. Let no man say he has not been given a chance to be heard. Now is the time to speak for a place. F. L. B.



Wyoming White House Conference

INTEREST of the physicians of the state is called to the third annual convention of the Wyoming White House Conference, to be held in Cheyenne May 2 to 4.

The Public Health and Medical sections will be given special attention throughout the program.

Of more than usual interest to health workers and to the general public will be the Public Health Clinic, to be held at Memorial Hospital on Thursday afternoon. All phases of child health, together with diseased conditions and their prevention and treatment, will be presented in short pungent talks, by posters and drawings, and by demonstrations with a large number of children. In the afternoon Dr. W. H. Hassed, Secretary of the State Board of Health, will preside over a session devoted especially to County or Community Clinics—how, when, where, and why they should be conducted and financed.

All physicians of Wyoming are urged to attend the conference. F. L. B.

WE ARE HAPPY TO CONTINUE

COLORADO MEDICINE

537 REPUBLIC BUILDING
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* * *
Harvey T. Sethman, Managing Editor

April 21, 1934.

Sidlo, Simons, Day & Company,
First National Bank Building,
Denver, Colorado.

Gentlemen:

During the past twelve months your advertising copy appearing regularly in Colorado Medicine has evoked favorable comment because of its conservatism and absence of speculative features.

Your space contract having expired, we are extending you a most cordial invitation to remain with our family of reliable advertisers during the next twelve months. Having every confidence in the integrity of your organization we believe our members should be kept informed of your non-speculative offerings.

Sincerely,

HTS:K

HARVEY T. SETHMAN.

For the past twelve months we have written articles and advertising copy for the Colorado Medicine with the intent and hope that they might be of some material benefit to the doctors.

We wish to express this hope at the beginning of another twelve months' association—that more doctors will call upon us for help with their investment problems.

We thank you for the confidence your Association has shown by extending an invitation for us to continue as an advertiser in your Official Journal.



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Code Exemptions For Hospital Supplies

THE temporary exemption of hospitals from the codes of fair competition has been extended by order of General Hugh S. Johnson, Administrator for Industrial Recovery. His order stated that members of industries subject to codes of fair competition who sell or may sell supplies or materials to hospitals of the United States, which are supported by public subscription or endowment and are not operated for profit, are exempt. His order includes electrical and x-ray apparatus industries, scientific apparatus industry, and all other industries not specifically named which shall hereafter establish to the satisfaction of the administration that a substantial part of their supplies or materials are sold to such hospitals and that justice requires such relief.



Loans to Hospitals

REPRESENTATIVE JOHN J. COCHRAN of Missouri, and Senators Bennett C. Clark and Roscoe C. Patterson, both of Missouri, have introduced a bill in their respective bodies authorizing the Reconstruction Finance Corporation to make loans to certain hospitals. This bill is at present before the Banking and Currency Commissions of both bodies. The passage of this bill would enable the hospitals under certain conditions to borrow money from the Reconstruction Finance Corporation. Such a bill, if passed, would be of great benefit to hospitals; and it therefore deserves the support of every member of the State Hospital Association.

Hospitals Cannot Tolerate "Strikes"

A RECENT newspaper article stated that a group of nurses in a hospital in Kansas City struck while on duty in the operating room, "walking out" and leaving the surgeon without assistance, and that only after much persuasion by the surgeon were they willing to return and aid in the completion of the operation.

This action on the part of the nurses is one of the worst blotches on the year's medical record. The dispute which caused it was over a trifling matter, but even though the grievance had been a serious one there would still have been no excuse or precedent for nurses, physicians, or hospital personnel to "walk out," endangering one iota the patient's chances for recovery. The situation would have been grave enough if the operating room nurses had walked out before the surgeon began his operation; but it is unbelievable—granting that the incident is correctly reported to us—that the surgeon would be placed in the position of having to beg for help to finish an operation when delay or inefficiency on the part of assistants might endanger the patient's life. Such a thing is not done in hospital practice; and for any individual who follows such a course there is no place in the medical world.

We regret to learn that such a thing has happened; and while we do not hold ourselves in a "holier than thou" attitude, let us profit by the reaction to this incident, and if we have any grievances let us arbitrate them in a sane and ethical manner.

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Denver Hospital Council, Second Meeting

ON the twelfth of April, the Denver Hospital Council held its second meeting since its organization. No regular business was transacted, but several problems common to all the hospitals were discussed: First, the use of radios in the hospital, especially in the wards: The consensus of opinion was that if the hospital was wired for the purpose it was desirable to have a master radio and use ear phones in the various rooms; but since only one hospital in the city was so equipped, the others were allowing patients to bring in their own radios or to rent them from the hospital. No charge is being made for the use of the current if the radio is brought in by the patient. It was agreed that radios should not be allowed in the large wards except on special occasions and that in the private rooms their use should be limited and caution taken to make sure that other patients were not being disturbed.

Second, visiting hours: It was the opinion of the hospital representatives present that the hospitals had become very lax in the enforcement of visiting hours. A committee was therefore appointed to draw up a set of rules for visiting hours which would be enforced by all the hospitals.

Third, spectators in the operating rooms: It was decided that except in extreme emergencies and for scientific purposes visitors would be barred from the operating rooms.

Fourth, night service on telephone and elevators: The necessity of having full-time telephone operator on service at night was discussed. Those present felt that this was absolutely necessary in hospital service and that in some ways night telephone service was more essential than day service. However, many of the hospital people thought that the service of night elevator pilots and night orderlies might be dispensed with.

Fifth, handling the sale of newspapers to patients: It was found that many of the hospitals were giving this concession to employees in the hospital, such as elevator men or office boys. Others handled it through their drug rooms and charged the

papers on the patients' bills. One hospital asked their patients on entrance if they wished to have the newspaper delivered to their rooms; if that service was requested, the papers were addressed by the clerk in the office and sent to the rooms. None of the hospitals gave complimentary papers to patients.

The next meeting of the Denver Hospital Council will be at Mercy Hospital.



Meeting of the Colorado Hospital Association

THE Colorado Hospital Association met on Friday, April thirteenth, at the Cosmopolitan Hotel. This was the regular spring meeting of the Association, and was held at this time in order that some of the national hospital authorities who were returning from the Western Hospital meeting in Sacramento might be secured for our program.

Miss Shirley Titus, Professor of Nursing Education in Vanderbilt University, spoke on the consideration to be given to health matters in the new economic deal. She prophesied that more emphasis would be placed upon these problems, and that the agencies best serving the community—rather than those existing for their own selfish purposes—would be the ones which would survive. She philosophized at length on the individual's attitude and outlook on the problems of health. She gave a list of fifteen problems which must be solved in the next few years, the solution of which will determine the manner in which communities will handle their health programs.

Dr. Faxon gave an interesting and frank discussion of the successes and failures of the joint committee, consisting of representatives of the American, Catholic, and Protestant Hospital Associations, which has taken up with the authorities in Washington the problems of the recovery program which were of vital interest to hospitals. He also reviewed the discussion regarding insurance which took place at the Sacramento meeting. The theory was developed that there was a two-fold obligation to be considered in

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the public health program, first, the concern of the state regarding the health of the individual, and second, the obligation which the individual has to the state in return. Dr. Faxon felt that some form of insurance must be instituted, whether it be compulsory State Insurance or Voluntary Hospitalization Plans which are in effect in several states, and that the hospitals and the medical profession should initiate the type of insurance agreeable to them rather than have the labor organizations or any other groups inaugurate plans of which they have no knowledge and which would be detrimental to the hospitals and medical profession.

* * * * *

The annual meeting of the Mid-West Hospital Association will be held on Friday and Saturday, May 25 and 26, in Tulsa, Oklahoma. Several of the Colorado hospital people are planning to drive to Tulsa for this meeting. Anyone who is interested in making this trip, will please get in touch with Mr. William S. McNary, at the Colorado General Hospital, Denver, Colorado.

HOSPITAL ASSOCIATION COMMITTEES

President Hanner of the Colorado Hospital Association has appointed the following committees for the year 1934:

Auditing Committee—Haskin, Mrs. Bessie K., Chairman, Denver General Hospital, Denver; McCoy, Mr. James, Union Printers' Home, Colorado Springs; Sister Mary, Glockner Sanitarium and Hospital, Colorado Springs.

Constitution and Rules Committee—Sr. Mary Ignatius, Chairman, Mercy Hospital, Denver; Cochems, Dr. Frank, Red Cross Hospital, Salida; Erb, Mr. A. H., Mennonite Hospital and Sanitarium, La Junta.

Hospital Cooperation and Coordination—Witham, Mr. R. B., Chairman, Children's Hospital, Denver; Andrew, Dr. John, Longmont Hospital Association, Longmont; Epler, Dr. Crum, Woodcroft Hospital, Pueblo; Haskin, Mrs. Bessie K., Denver General Hospital, Denver; Sister Emerentia, St. Francis Hospital, Colorado Springs.

Legislative Committee—Andrew, Dr. John, Chairman, Longmont Hospital Association, Longmont; Black, Dr. H. A., Parkview Hospital, Pueblo; Brady, Dr. E. J., Colorado Springs Psychopathic, Colorado Springs; Collins, Mr. Geo. A., unattached, Denver; Witham, Mr. R. B., Children's Hospital, Denver.

Membership Committee—Swanger, Mr. John E., Chairman, Modern Woodmen Sanitarium, Colorado Springs; Browitt, Mrs. Clara M., Greeley Hospital, Greeley; Sister Mary Xaveria, St. Anthony's Hospital, Denver.

Nominating Committee—Christie, Mr. W. G., Chairman (term expires 1936), Presbyterian Hospital, Denver; McNary, Mr. W. S. (term expires 1935) U. of C. Sch. Med. and Hosps., Denver;

Brown, Mr. R. J. (term expires 1934), Boulder-Colorado Sanitarium, Boulder.

Committee on Nursing Education—Rees, Dr. M. H., Chairman, U. of C. Sch. Med. & Hosps., Denver; Ankeny, Miss A. Faith, Corwin Hospital, Pueblo; Christie, Mr. W. G., Presbyterian Hospital, Denver; Morrison, Miss E. Luella, Children's Hospital, Denver; Murchison, Miss Irene, State Board Nurse Examiners, Denver; Sister Mary Linus, St. Joseph's Hospital, Denver; Sister Sebastian, Mercy Hospital, Denver; Smith, Miss Mary K., Beth-El General Hospital, Colorado Springs; Walter, Mr. F. J., St. Luke's Hospital, Denver.

Program Committee—McNary, Mr. W. C., Chairman, U. of C. Sch. Med. & Hosps., Denver; Bronfin, Dr. I. D., National Jewish Hospital, Denver; Walter, Mr. F. J., St. Luke's Hospital, Denver.

Committee on Public Education—Hilton, Dr. J. P., Chairman, Mount Airy Sanitarium, Denver; Fulton, Mr. E. G., Porter Sanitarium, Denver; Jaffa, Dr. B. B., Denver General Hospital, Denver.

Special Committee on Allied Professions—Black, Dr. H. A., Chairman, Parkview Hospital, Pueblo; Andrew, Dr. John, Boulder-Colorado Sanitarium, Boulder; Hilton, Dr. J. P., Mount Airy Sanitarium, Denver.

COOPERATION BETWEEN NURSES AND DIETITIANS AS SEEN BY THE DIETITIAN

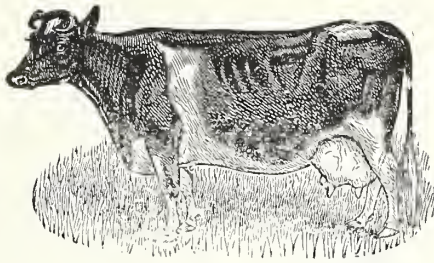
ROSELLA HANFELD*
DENVER

The subject of cooperation between the dietitian and nursing staff might seem to some a trite one. Certainly the need of such cooperation is so self-evident that it requires no comment. The welfare and lives of patients are entitled to the utmost in cooperation and coordination, not only between dietitians and nurses, but between doctors, interns, superintendents, dietitians, nurses, and even those to whom are delegated the menial tasks in and about a modern hospital. Surely a patient's life and health demand the precise and accurate functioning of a well ordered and delicately controlled machine. Sometimes I feel that each of us in our separate departments become so engrossed with our own small cog of the machine that we are prone to forget the machine as a whole.

Trying to look at the question from the viewpoint of the patient, the outsider, the inadequate functioning of this machine is the indictment against the modern hospital. A patient is sensitive; his mental outlook is confined to his illness and his immediate

*Chief Dietitian, Mercy Hospital, Denver.

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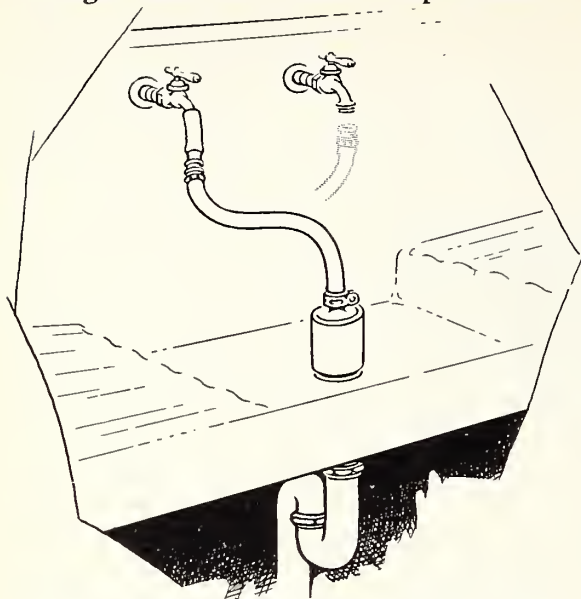
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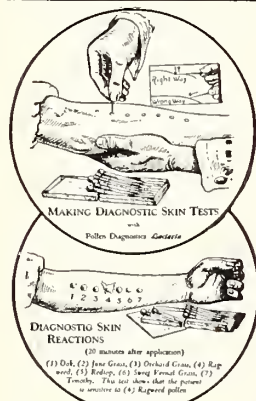
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surroundings. He rarely objects to his medical attention except for his oft-repeated query, "When is the doctor coming?" But noises, lack of prompt attention, poor nursing care, cold or inadequately prepared food—these and myriads of other details are all important to him. In the non-observance of these details, due to lack of cooperation, many hospitals are subject to criticism.

I believe it is well for all of us once in a while to stimulate in ourselves an awakened conscience, an awakened sense of duty, a realization that our basic and final duty is to the patient. For some reason or another I cannot help but adhere to the notion that the ministrations to the sick is a devotion to a cause. I am sure such a notion is the foundation upon which such characters as Pasteur, Nightengale, and Eijkman are based. If what I have said be true, then isn't cooperation a thing not merely to talk about, but an absolute necessity? Is it not positively essential that we always remember that our particular department is merely a cog in an intricate machine, and that the unit as a whole must function.

Now as to cooperation between the various departments and more specifically between dietitians and nurses. Inasmuch as this paper is intended to provoke discussion, I will make no effort to refrain from partisanship in my viewpoint. I am well aware that dietary departments merit constructive criticism, and it is always welcomed. Any criticism which I may direct toward other departments is intended purely to be constructive and for the sole purpose of the better functioning of the unit as a whole.

The staff of physicians and surgeons is the nucleus about which our hospital organization is formed. Naturally we look to the doctors for guidance and inspiration. And here let me make a suggestion to them in the matter of cooperation. Are they not inclined, as a result of their all-absorbed attention to the surgical and medical aspects of a patient's life, to become careless or intolerant of other necessary details of hospitalization. Adequate, well-temperated, properly served food and earnest unselfish care are just as essential to the welfare and convalescence of the patient as is medical attention. One is as necessary as the other,

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and excellence in one is as desirable as excellence in another. The doctor makes his rounds and is gone. He is prone to forget that the supervisors, the nurses and the dietitians carry on twenty-four hours a day. It is the little things which make a patient contented or discontented. If the doctor would but remember this, the precept and example in cooperation, which he could set, would be of infinite value in stimulating cooperation between other departments. Perhaps careful consideration of the problems of hospital management and supervision would make him more sympathetic with details, which mean so much in a patient's life.

I wonder if a doctor ever stopped to realize that meal-time in a hospital is the same as meal-time at home. He drops in during tray service; supervisor and nurses are taken from their work; the served trays stand in the diet kitchen; hot food gets cold and cold food gets warm. When the doctor is gone and the food finally arrives, it is not palatable. A small detail. Yes, and used merely as an example of the necessity of cooperation between doctors and hospital management.

Now let us consider cooperation between dietitians and nurses. A dietitian has a permanent position as compared with the transient student nurse or the one on special duty for a day. She naturally feels a part of the institution with which she is associated and is bound by loyalty to it. She is a definite part of the growth and development of the hospital and its success is therefore vital to her. Loyalty among department heads reflects itself in all workers, and this indeed is of infinite value to any institution. It is a thing that cannot be over-estimated. Its influence, though not tangible, is nevertheless far-reaching.

An efficient dietitian is not a faddist but uses common sense and skill in applying her scientific knowledge. She does not direct her patients to "go starch" or "go protein," or lay down laws of "do's" or "don'ts" in food combinations. To her it is not all-important that celery be served with every course until the dessert at a protein meal.

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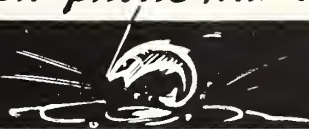
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Nor is she advocating that starches and sugars combine with each other and with all fats, salad greens and vegetables, except "cooked tomatoes." Such dietetic extremes she leaves to faddists. The special diets are rapidly becoming an abomination of the past so far as patients are concerned.

The time is not far distant when with only a few exceptions a special diet will be merely a variation of the basic normal diet. In the hospital as well as in the home, the patient is a part of the family living as nearly as possible a normal life. It should be the aim of the hospital to duplicate his home surroundings.

To keep the institutional machine running smoothly, each department must try to remove the obstacles that are constantly causing friction and interfering with its perfect motion. The difficulties that daily confront the dietitian and the nurse are based primarily on the failure of each group to visualize and evaluate the purposes and efforts of the other. The very organization of the hospital makes it easy for each department to shift responsibility. If the dietitian could prepare, deliver and serve all the food, it would definitely fix the responsibility—but the financial demands of such a procedure render that impossible.

Furthermore, the dietitian has the education of the student nurse to consider, and the responsibility in this respect is just as great as that of the departments of surgery and medicine. Unfortunately some training schools seem to have neglected the proper training. As a result the student nurse is not encouraged to accept the right kind of diet responsibility during her service as diet nurse. The student's mental attitude toward her work is of great importance. Unless there is a profound conviction of the worthiness of the task and an earnestness of purpose, nothing can be accomplished. Destructive criticism of a supervisor or a discontented attitude of a nurse should not be tolerated at any time.

The co-workers of the dietary department may be jealous or suspicious because of a lack of understanding of the relation of the

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dietitian to other departments. The supervisor and nurse sometimes feel that the dietitian gains too much favor with a patient after a visit to the room. The welcome often extended to the dietitian is like a small-pox sign on the front door panel. The introduction to the patient is frequently an embarrassing one. They often object to the dietitians' contact with the patient and frequently withhold valuable information and help to her in adapting the diet to the patient. Naturally then any difficulties about the trays or delays in service are willingly cast upon the dietary department, where they often rightfully do not belong. Fortunately this type of annoyance is passing rapidly and now is prevalent only in the small hospitals.

The doctor has done much to correct such false impressions and lack of understanding on the part of supervisor nurses. The doctor writes an order for routine diet and he likes to feel that the dietitian can make the adjustments indicated in each particular case. He appreciates the dietitian's personal contact with the patient to get the patient's viewpoint. Friendly discourse between dietitian and nurses will help to allay any fears of favoritism and to keep out the enemy, jealousy, which causes so much disorder.

Cooperation between the two prominent departments leads up to an economic factor. It helps in the reduction of waste. The supervisor is in a position to observe certain foodstuffs being declined by the patient, and should note such a change in his menu before the tray is served, and not after it has been delivered from the kitchen. Careful check on nourishment and refrigerator supplies prevent an excess of any food, thereby eliminating spoilage. An accurate check on distribution of supplies prevents duplicate orders. Many a request for special catering may be eliminated by the diplomacy on the part of the supervisor when an order for special food is not necessary. This saves the hospital money, time and labor. To the diet nurse falls the clerical duty of new admissions, transfers and discontinued trays, as well as changes in diet orders.

Each patient deserves individual attention.

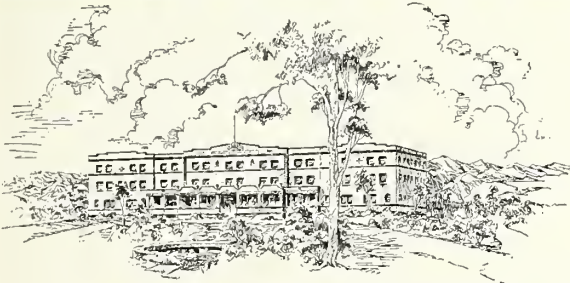
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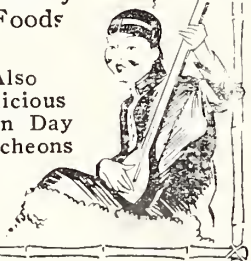
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In case a patient is due for operation, discharge or x-ray, the diet laboratory should be notified immediately. Otherwise the time involved in the careful calculation and preparation of the special tray is lost. Too often this information is neglected by the nurse, and the tray remains unserved—a loss of efficiency and of food to the hospital. There is a no more irritating experience than to carefully plan and supervise a special tray, and then to discover that there is no patient to appreciate it. When the special diet patient is planning to leave the hospital, the therapeutic dietitian should be notified. She needs to give a diet instruction and to prepare the patient to carry on his hospital diets at home.

Of all the departments in a hospital discussed most frequently by patient, ex-patient, future patient, his friends, relatives and in-laws, the dietary and nursing departments head the list. A patient may live with a minimum of proper food and a minimum of care, but he will rue the day that he ever has to return to a hospital supplying those minimums. Through close cooperation and constructive effort, it is perfectly possible and practical to supply him with a maximum of those things which mean so much to him. Let each patient leave the hospital, talking about excellent food and excellent care, instead of harping perpetually about his "operation." Then the dietary and nursing departments will steal the doctor's "thunder."

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no conveyance has been developed which will take the place of cooperation between dietitian and nurse in getting adequate, well-balanced, attractive food to the patient—hot when it should be hot, cold when it should be cold. The patient should be fully prepared for the meal when the meal is ready; the nurse should be on the floor to deliver the tray. If the dietary department is prompt in preparing the meal, the nurse should be prompt in serving it to the patient. Clock-work precision and complete cooperation are vital all along the line between the time food is prepared and the time it is served, if we are to have satisfied patients.

True cooperation and a greater blending of the two departments are desirable. With sincerity, devotion to purpose, sympathy with each other's problems, and above all, the sublimation of personal interests to those of the patient, we should go far in making our machine function smoothly and efficiently.

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 ++

Lady Patient: "Doctor, before I come out of the ether will you tweeze my eyebrows?"

* * *

Giles: "Fine day, Jarge. Spring in the air."

Jarge (who is slightly deaf): "Eh?"

Giles: "I said, Spring in the air today."

Jarge: "Eh?"

Giles: "Spring in the air."

Jarge: "Why should I, why should I?"

* * *

"I hear that Katherine is marrying that x-ray specialist."

"Really? What can he see in her?"

* * *

Steeplejack: "'Ullo, Bert. Where's that mate you took on—the chap that used to be an artist?"

Second Ditto: "'Aven't you 'eard? Soon as he laid a couple of bricks, he stepped back off the scaffolding to admire 'is work."

* * *

Movie Director: "Unmarried?"

Applicant: "Twice."

* * *

"Ah's gonna ask Mose Jenkins to remove some teeth fo' me."

"Yo' sap. He's no dentist. He's a burglar."

"Ah knows it. Ah wants my false teeth removed from a hock shop!"

* * *

Girl: "The doctor assured me that I'd be working again in three weeks after this accident to my foot."

Caller: "Bravo! Doesn't that cheer you up?"

Girl: "Does it. I hadn't been working for six months before the accident."

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EDITORIAL NOTES AND COMMENT

Denver County Honors Its Veterans

FOR the first time in the history of this State, nearly a score of the real old time physicians have broken bread together as honored guests of their County Society. During the past few years several individuals have been so honored, but there are too many veterans for separate occasions. Each has earned and long deserved recognition, having been a credit to his profession for fifty years or more. Books could be written about their lives of service. However, on May 22, a banquet was arranged at Denver's Shirley Hotel, and a sponsor for each old timer was allowed a few minutes for a biographical sketch of his "victim." It was necessary to limit the honors to those who are still Society members; hence a few worthy old doctors were omitted. Their innate humility opposes too much antemortem eulogizing. One had thus forewarned his sponsor: "For Heaven's sake soft pedal the crescendo!"

Dr. W. C. Bane was sponsored by his old friend, Melville Black. For years these two shared patients—and without jealousy. When one caught a patient, he showed it to the other. Thus they both practiced. Dr. Mary E. Bates is well known for her activities on behalf of favorable legislation toward school children and domestic and wild animals, and for the philanthropies of the Mary E. Bates Foundation. Her good friend, Ethel Fraser, acted as her sponsor. Dr. W. W. King, the Toastmaster, spoke for one of the honored guests, George

Crews. After seven years as a medical missionary down in China, Dr. Crews came up to Colorado. He has been glad to stay up here, still a friend to man, a careful student, "in his house by the side of the road." As one Canadian to another, James Philpott sponsored Dr. H. R. Elliot. Dr. Elliot practiced in London many years ago; he responded to his toast with reminiscences. Philip Work sat at the head of the table preparing to introduce his man. Someone asked him if he was the father of Hubert Work who sat few feet away. He told how Dr. H. L. Lorimer started out in the practice of medicine half a century ago with physical assets and \$2.30. At present he has the physical assets. Mrs. Miel's husband, George W., had for a sponsor a man who passed many years in Pueblo. After escaping from there, Hubert Work spent a surprisingly long time in the Department of the Interior at Washington. Miel still holds the endurance record as a railroad surgeon. Hubert didn't like the choice of selections played by the musicians during the meal—"The Last Roundup," and "Going Home." Such a choice for men who have practiced medicine only fifty years! George N. Macomber is one of the three oldest veterans, having obtained the M.D. degree in 1878. Two other honored guests were graduated in the same year: Edward Jackson and F. H. McNaught. Macomber was a personal friend, in the early years of his practice, of Senator Potts in New York State. The Senator was an important man. In fact, three communities were named after him—Pottsdam, Pottsville, and Chambers-

burg. James R. Arneill sponsored this number on the program. S. R. McKelvey is famous for his activities in the field of Public Health. Leonard Crosby could not bring his biography down to date because the subject of sewage disposal has no place at a banquet. Another old-timer has never received suitable recognition for his very material and fruitful contributions to the advancement of medicine. H. W. McLauthlin proposed and appointed the first staff of the old Denver General Hospital. He was one who distinguished himself on the medical school faculty for teaching subjects which no one else could or would. Dr. J. N. Hall reviewed these facts along with others known through the fifty-five years of his friendship with McLauthlin. An interesting career was that of F. H. McNaught. Sam Childs described his life as a railroad surgeon, teacher, medical army officer, and as a prominent member of the Colorado State Medical Society. He was the only man to hold the presidency of this organization for two successive terms. Dr. Howell T. Pershing, Sr., has been an outstanding personality for many years in the field of neurology and psychiatry. Frank Kenney mentioned a few of his many honors therein. In early childhood, Clinton G. Hickey aspired to be a fireman. His father insisted he didn't have the brains or the guts to be a good fireman. So the son finally was steered into medicine. He has succeeded; he would even have succeeded following his original ambition. Old Hippocrates was a piker compared with Hickey, averred Frank Rogers. Dr. D. A. Strickler has been prominent as an ophthalmologist and widely known in the field of medical education and licensure. His sponsor on this evening fulfilled his duties in a unique way. Great was the foresight shown. He had printed copies of nice things about Strickler—such things as other sponsors had taken more or less time to say. These bulletins were to be claimed by those present who desired them, and they could be sent to absentees. They were in no way disturbing to any guests who had been claimed by Morpheus. Leonard Freeman sponsored Dr. C. B. Van Zant, who is as white

throughout as his hair is white. A man whose best thinking has been done about each individual case he has treated during a half century was sponsored by Edward Jackson. Such a worthy physician is Herbert Whitney. Dr. C. S. Elder described the versatility of Newton Wiest. Modest and retiring, he taught many subjects in the old medical school. An absentee, who has never waived his loyalty to the profession in Colorado, is Dr. H. G. Wetherill of Monterey, California. Cuthbert Powell began the practice of medicine with him in Denver many years ago. Dr. Wetherill is a good surgeon and voluminous writer, but in his retired years he has perhaps been better known as a traveler and sportsman. Many friends in this section remember his outstanding activities in organized medicine over a number of years in this State. Dr. A. K. Worthington is entitled to recognition among these veterans, but was unable to attend the "exercises."

Three other men in the same group were in the background during this occasion. Nevertheless, they are actually at the head of the class, having been individually honored at similar occasions during the past two years. Hats off to Edward Jackson, J. N. Hall, and Robert Levy!

Every few years, such a delightful occasion will be in order for the men who pass the half century mark. May there be many more to receive their diplomas in the coming years. Thanks to the men who worked to promote and assure the success of the event—Osgood Philpott and Jack Amessee. Osgood is noted for quick thinking and for an acute sense of justice. One of the guests, noting that Bernard Yegge was all but snoring, asked Dr. Philpott, because of his official capacity, to awaken the somnolent one. Osgood promptly suggested that this peculiar responsibility be rightfully placed upon the spokesman whose words had such soporific effect. For the moment the matter seemed closed but we have heard that as the guests began to file out, Dr. Yegge was seen arousing to the staid, if not proud, prodding of Frank Rogers.

Progress in Communicable Disease Control

SEVERAL large cities in the United States have removed the time-worn quarantine regulations imposed upon the minor communicable diseases — measles, chicken-pox and mumps. This might appear to be a dangerous step. However, careful analysis reveals many factors favoring this movement. So far, there have been no regrets. It is believed that many more cities will follow as soon as the motives are understood. More cases will be reported, as dread of quarantine has prevented calling a physician in a large per cent of cases. Furthermore, most of the damage from contagion is done even before a diagnosis is established. It is needless to mention that quarantine regulations are not complied with in many instances and probably not over half the cases are reported. Naturally conservatism must be observed in the alteration of regulations which deal with health and life.

The Health Department of the City and County of Denver is preparing for immediate institution of this plan. There is every reason to believe that it is a step in the right direction. Suitable publicity will accompany the program, so that the public will be informed. This is a necessary part of the activity; otherwise there would be serious misunderstanding and misinterpretations. Reporting of cases will be largely through physicians, school teachers, visiting nurses, and intelligent laymen. To each home thus reported the Health Department will promptly mail a bulletin describing the nature of the disease, its dangers, and instructions for protecting other people. Cases which have been reported may return to school when symptoms have abated. If the case was not reported, the patient must appear personally at the Health Department for a permit. This requirement further encourages reporting of cases. They are advised to consult a physician, if not already, but no instructions for care or treatment are included. This places the responsibility of isolation upon the family where, after all, it actually is in any event. It also relieves the Health Department of blame where exposure of other

children occurs in spite of its recommendations. Unfortunately every community has a few physicians who have "favored" their patients by failure to report communicable diseases. There will now be even less excuse for this than there has ever been. The Board of Censors of the County Society should rigidly discipline such men whenever possible.

People cannot be legislated into conformity with conventionalities. Educational propaganda should be superior, at least in the reporting and control of the minor communicable diseases. Mistakes will undoubtedly be made but should be correctible. If the plan is successful, its scope will be carefully expanded. The first addition may be whooping cough. Other communities will observe this plan with interest. They should profit by any errors that may be made and modify their health regulations accordingly.



Memorial to Colonel Earl Harvey Bruns

THE colleagues and pupils of the late Colonel Earl Harvey Bruns, former Commanding Officer at Fitzsimons General Hospital and authority on tuberculosis, recently assumed the responsibility of his commemoration. A Committee appointed by the President of the Denver Sanatorium Association has procured a portrait of Colonel Bruns for presentation to the Tuberculosis Service of the United States Army. Mr. J. I. McClymont, of Colorado Springs, has thereby accredited himself with another masterpiece. It is a perpetual remembrance of the esteem in which Colonel Bruns was held by his civilian and military friends throughout the United States. He has been placed among the immortals in tuberculosis.

The dedication of this memorial took place in the Officers' Club at Fitzsimons Hospital on May 24, following a banquet attended by the medical officers and several prominent Denver citizens and physicians. Toastmaster, Colonel Carroll D. Buck. Speakers, Governor Ed. C. Johnson, Mayor George D. Begole; Doctors H. J. Corper, Arnold Minnig, Cicero L. Lincoln, and Henry Sewall;

Majors William C. Pollock and P. M. Crawford; and Colonel Robert M. Hardaway.

Colonel Bruns was a member of a trio which formed the keystone of the anti-tuberculosis movement in the United States Army. The other two prominent Army physicians were General George M. Sternberg and Colonel George E. Bushnell. The former, as Surgeon General in 1893, recommended establishment of the Army Medical School and of the sanatorium at Fort Bayard. Colonel Bushnell was placed in charge of this encampment in 1904. At this time, Earl H. Bruns was completing his medical education. In the Philippines he contracted tuberculosis and was sent to Fort Bayard for treatment. It was here that he came under the happy spell of Colonel Bushnell during nine years of association. Carrying with him the inspiration of his preceptor, he endeared himself to colleagues and patients until his death in March, 1933.

We remember Colonel Bruns for his indefatigable work, distinguished personality, skillful diagnostic acumen, and for his writing and teaching. Progressive work was done on artificial pneumothorax, chest surgery, heliotherapy, annular x-ray shadows, air embolism, significance of types of rales, climatic treatment, and other phases of tuberculosis.



Postgraduate Clinics At Pueblo

THE Pueblo County Medical Society complimented the profession with three days of Postgraduate Clinics, April 18, 19, and 20. Their plan followed closely that of the Midwinter Postgraduate Clinics held by the Colorado State Medical Society last January. The Clinics took place at the Corwin, Parkview, and Saint Mary Hospitals. The hospitals provided complimentary luncheons each day. A dinner, evening of April 18, was given by Dr. Crum Epler at Woodcroft; also the Pueblo County Medical Society acted as host at dinner, April 19, at the Vail Hotel. There was no registration fee; voluntary subscription by members of the local Society handled expenses.

Total registration at the three hospitals,

270. Twenty-nine towns were represented, eighty-three doctors coming from twenty-eight towns except Pueblo. Sixty-eight registered from Pueblo, making a total of 151 attending the Clinics.

Enthusiastic appreciation of the program prevailed throughout and the guests felt more than repaid for attending. Though 400 invitations were sent out, we regret that they did not reach the entire State Society membership.

It is anticipated that this activity will become an annual affair, to be known as the Spring Postgraduate Clinics of the Colorado State Medical Society. There is no reason why they should be financed by contribution or assessment of the local men. In the future, the State Society could manage this phase. There appeared to be no objection to the \$1.00 registration fee at the Midwinter Clinics in Denver. This provides funds to cover expenses except the luncheons, which the hospitals are glad to prepare.



Economy

A VERY acute thought on medical costs has been gleaned from the New York State Journal of Medicine. The author wonders why the doctor bill was elected to receive all the attention of a million dollar committee—the late Committee on the Costs of Medical Care. Some such consideration might easily be in order for some of the bigger expenses, such as the automobile bill which is two or three times as large. Not to mention candy, gum, cosmetics, worthless patent medicine! One might mention the cost of supporting politicians who are boosting the high cost of government higher every year and who selfishly override the President's veto on extravagant bills rather than lose the support of a powerful voting body.

Gasoline, gum, cosmetics and the like must be paid for, hence the doctor's bill is ignored. And they complain about one high cost—that of medical care. Here's a thought: How much would it cost to be without medical care? Were it possible to formulate an answer, the cost of medical care would be revealed as the most just and economical expenditure in the world.

THE EARLY RECOGNITION AND TREATMENT OF MALIGNANCY OF THE SKIN*

G. P. LINGENFELTER, M.D., AND JOHN V. AMBLER, M.D.
DENVER

The laity has been well informed during the last decade as to the importance of early recognition of malignancy and, as is natural, it is the lesions the patient can observe for himself that get the earliest attention. The superior results obtainable in the field of skin cancer therapy is explainable on this basis alone. As physicians we are all constantly bombarded with questions from patients in regard to potential malignancies they have, or think they have, and so it behooves us to be capable of recognizing and treating the numerous precancerous dermatoses as well as those lesions which have undergone malignant degeneration.

The Precancerous Dermatoses

1. Senile Keratoses. It is from this type that most of the malignancies of the face and hands develop. Hazen and others have estimated that about 5 per cent of senile keratoses undergo epitheliomatous changes. With the appearance of an inflammatory border of the lesion, one should immediately suspect a malignant growth. Senile keratoses are easily and safely destroyed by the superficial application of the monopolar current to the lesion and to small margin of the normal skin. The dessicated tissue is then removed with a curette and the bed of the wound then slightly dessicated. This treatment is usually followed by one intensive treatment with the roentgen rays to insure a non-recurrence.

2. Seborrheic Keratoses or Verrucae Senilis. There are sharply circumscribed lesions varying in size from a pinhead to an inch in diameter. They are slightly raised and are covered with greasy scales which may be gray, yellow, brown or black. They are the most common of the keratoses but it is doubtful whether they should be included under the precancerous dermatoses, as they rarely undergo malignant degeneration.

Their removal is usually for cosmetic reasons only, which may be done in the same manner as described for senile keratoses.

3. Cutaneous Horns. These peculiar keratotic eminences have as their site of preference the scalp, face and extremities, although they may be found upon any part of the body. Owing to irritation due to movement, the base of these lesions may undergo malignant degeneration. It is safer to assume that all cutaneous horns are malignant in character and to treat them as such. During the last six months we have observed three lesions clinically diagnosed as cutaneous horns. Upon microscopical examination of biopsies taken from the base of the lesions, two of the three were proved to be squamous cell epitheliomas.*

The treatment consists of removal of the horny material surgically and subsequent thorough dessication of the base. It is well to follow this treatment with roentgen rays.

4. Other Types of Keratoses. Epitheliomas which follow occupational exposure to various chemicals such as tar, pitch and arsenic are invariably preceded by keratosis. Arsenical keratoses following long-continued internal use of arsenic have a predilection for the palms and soles; in this location they rarely undergo malignant change.

5. Nevi. Any mole may be the site of malignant change. However, only certain types develop into melanomas. The dangerous type of mole is usually steel blue or bluish black and situated in an area subject to trauma. They are as a rule non-hairy. Lesions of this type should be radically excised early. The endotherm knife is perhaps the method of choice as it seals the lymphatics and capillaries while cutting, thus lessening the danger of metastases if malignant changes have taken place.

6. Kraurosis Vulvae. This is usually an

*Read before the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs, September 14, 1933.

*These sections were prepared and studied by Dr. William C. Black of the Department of Pathology, Colorado General Hospital.

extremely pruritic condition, consisting of atrophy and scleroses of the vestibule, labia minora, and prepuce; it is regarded as a definite precursor of malignancy.

The only satisfactory treatment is surgery, consisting of partial or complete vulvectomy. McKee believes irradiation of little benefit but worthy of trial as a palliative measure. Eller states that its use is contraindicated.

7. Leukoplakia. In the advanced stages, leukoplakia is frequently followed by carcinoma. This condition appears as white patches upon the tongue, lips, oral and genital mucosa. In the mouth the causative factor can usually be traced to tobacco, bad teeth, or syphilis. When fissures or signs of inflammation are present, malignancy should be suspected.

Small lesions of leukoplakia may be destroyed with electrodesiccation, and if strict attention is paid to prophylaxis the condition is not likely to recur. Eller states that the use of radium, x-rays, carbon dioxide snow, or chemical caustics for the treatment of this condition is contraindicated.

8. Radiodermatitis. The late sequelae of this condition are keratoses and finally carcinoma. Keratoses may be destroyed by electrodesiccation or electrocoagulation. Carcinoma developing upon a radiodermatitis background are best removed by some form of surgery.

9. Syphilis. This disease plays a more important part in the development of carcinoma than is commonly recognized. Certain types of tertiary manifestations, especially gummas and interstitial glossitis, undoubtedly predispose to cancer. It is a common occurrence for the physician to be misled in the diagnosis of oral carcinoma because of a positive serology.

10. Xeroderma Pigmentosum. This is a rare malady usually starting early in childhood and progressing continually. The majority of the cases finally become epitheliomatous, with fatal results by the third or fourth decade of life. It is important to recognize such cases in order that the patient may be warned of the danger of the development of a malignant condition and

that he may be instructed to protect himself from the sun.

11. Chronic Ulcers. Lesions of long standing, such as varicose ulcers and draining fistulae, occasionally undergo malignant change and should be subjected to close examination with this possibility in mind.

12. Lupus Vulgaris and Lupus Erythematosus. Malignancy rarely develops upon the site of these conditions. However, diagnosis of such a change is apt to be overlooked and is often determined only by biopsy.

In dealing with any of the above dermatoses, one should always bear in mind the possibility of malignant degeneration and, if the appearance is at all suspicious, a biopsy should be taken for examination.

Malignancies of the Skin

In the treatment of skin malignancy, the object is to destroy completely all of the malignant cells with as good a cosmetic result as possible. Early malignancies of the skin are curable by several methods, the choice of treatment depending upon various factors. Whatever method or combination of methods used, it is extremely important that the original treatment be thorough, the cosmetic result being of secondary consideration. This rule is best observed in all types of malignancy; a recurrence is as a rule much less amenable to treatment than the untreated case.

In addition to the clinical diagnosis, the following factors should be considered before making a choice of therapy: age of patient, location and extent of lesion, amount and nature of previous therapy, and biopsy examination. It is to be emphasized that no routine treatment should be used; each case should be individualized and treated accordingly. The physician who uses one remedy to the exclusion of all others is certainly doing his patient an injustice. The various types of skin malignancies are considered separately:

1. Basal cell epithelioma. Over 90 per cent of basal cell epitheliomas are located upon the face, showing a predilection for the central portion—that is on the nose, cheeks, and on the forehead and temples.

Growth and development are usually slow, often extending over a period of years. Basal cell epitheliomas present a variety of clinical pictures, but the typical early lesion is usually described as a slow growing ulcer with rolled, pearly telangiectatic borders, usually covered with a brownish crust, the removal of which causes bleeding.

Early basal cell lesions are quite radio-sensitive in general and, when treated by an experienced physician, this therapy alone yields the best cosmetic results. McKee, who is perhaps the outstanding authority on radiotherapy of skin conditions, states that successive hyperintensive treatments gives far better results than the fractional method. If the fractional method is used the treatments should be given every day; this is in reality the same as the hyperintensive method. Although many cases are permanently cured by radiation alone, others are stepped up in activity so that they change to a squamous epithelioma of active type. If early basal cell epitheliomas are first completely destroyed by electrodesiccation and curettment, prior to radiation, recurrence is reduced to a minimum, and the resultant scar is hardly more noticeable than when radiation alone is used. If there is involvement of the cartilage of the eyelids, nose or ears, surgical excision by the cutting current followed by irradiation is the treatment of choice. If surgical plastic repair is needed, it should not be attempted for a year or more in order to be reasonably sure that there will be no recurrence.

2. Squamous cell epithelioma. Any area of the skin may be the site of this type of malignancy, but the common locations are the lips, intra-oral region, hands, neck, ears and genitalia. On the face and hands senile keratoses are usually the predisposing factors. Epitheliomas of the lip and mouth are invariably of the squamous cell type, chronic irritation of various forms usually being responsible.

In treating squamous cell carcinoma one should never rely on one procedure alone. The method described for basal cell epitheli-

oma, if carried out thoroughly, is practically always successful in early cases. The possibility of metastases must always be kept in mind.

Carcinoma of the lower lip is perhaps more common in the western states than elsewhere due to exposure to the wind and sun. There are still considerable differences of opinion held as regards the treatment of lip carcinoma. Radical surgical excision with its resultant deformity is not practiced to the extent that it was formerly, because of the excellent results obtained by the improved technic of electrocoagulation and radiation. Pfahler and Vastine in 1932 reported a large series of cases treated by this method; their statistics show a recovery of 95.5 per cent in all primary cases, even when there were palpable lymph nodes present. The use of small radium needles in treatment of lip carcinoma is also becoming more popular; this will be described under oral carcinoma. Metastases to the submental and cervical lymph nodes present the greatest problem in the treatment of carcinoma of the lip. If no lymph nodes are palpable and the lesion is early and small, no therapy is necessary to the nodes, but they should be examined at intervals over a period of years. If there is suspicious or unquestionable involvement of the nodes we advise later dissection of the nodes in operable cases, preceded and followed by filtered x-ray treatment. We believe with Quick, Pfahler, Driver and others that routine block dissection of the lymph nodes in all cases of lip carcinoma is unwarranted.

Great advances have been made during the last few years in radium therapy of intra-oral malignancy. Surface application and radon implantation, although still used extensively, have been far from satisfactory. The technic we refer to was first proposed by Régand in France and Cade in England. The improved Régand and Cade technic is based upon the principle of prolonged radiation with small quantities of radium heavily filtered. This eliminates the painful slow healing necrosis that results from the use of

large amounts of radium insufficiently screened and given in a short time. The method consists of implanting radium needles into the surrounding normal tissue and transversing the growth at about one centimeter distance apart and allowing them to remain in situ for five to ten days. These needles are 1.65 mm. in diameter, made of platinum and iridium walls .5 mm. in thickness; they are of varying lengths. They are so constructed as to contain approximately 0.5 mg. of radium element per running centimeter of length. There is surprisingly little local reaction and practically no discomfort, healing is prompt, and the final results are as good or better than surgery without the disadvantage of a mutilating operation.

3. Baso-squamous cell epithelioma. These lesions resemble the basal cell epithelioma clinically and the diagnosis is usually made only from the microscopical examination. Histologically, one finds typical basal cell epithelioma in one part of the tumor and typical squamous cell epithelioma in another portion.

4. Paget's Disease of the Nipple and Bowen's Disease. These conditions were originally considered as precancerous dermatoses, but are now recognized as epitheliomatous. Paget's Disease requires radical removal of the involved breast. Bowen's Disease can be treated by more conservative measures.

5. Melanomas. If no metastases are demonstrable, the treatment of choice is surgical removal carried out by wide excision with the scalpel or by the cutting current. They are the most malignant of all skin tumors because of the early tendency to metastases; once this has taken place any attempt at therapy merely hastens the fatal outcome.

Summary

1. Attention is directed to some of the precancerous dermatoses, and the importance of recognition and treatment of such skin lesions is shown.

2. There is no one method in the treat-

ment of malignancy of the skin which can be used successfully to the exclusion of all others.

3. We advise the use of the scalpel, the high frequency cutting current, electrodesiccation, electrocoagulation, radium and x-rays, or a combination of two or more of the above according to the case.

4. The choice of therapy to be employed is dependent upon various factors, and no physician should attempt to treat all skin malignancies, where he is handicapped by lack of facilities or experience, by one method.

5. We point out that early basal cell and squamous cell carcinomata are often eliminated with comparative ease by the use of radium or x-rays. However, we believe that in early lesions of both types a combination of some electrosurgical or surgical procedure combined with radiation is the safer method. To delay radical removal of such growths until radiation alone has been tried frequently changes the lesion from a minor one to one the complete removal of which may produce marked deformity.

6. Except as a palliative measure, surface radiation alone is rarely indicated for the more advanced or recurrent lesions; a combination with one or more of the surgical procedures is usually required.

7. A brief description of the improved radium technic of Régand and Cade is given and its advantage over surgery in the treatment of intra-oral carcinoma suggested.

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PRIMARY CARCINOMA OF THE LUNG SIMULATING PULMONARY TUBERCULOSIS*

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That carcinoma of the lung can closely mimic pulmonary tuberculosis is well known, yet diagnostic pitfalls continue to occur with sufficient frequency in sanatorium practice to justify this report. Churchill¹, whose recent report on surgical treatment contains some hope for sufferers from this malady if an early diagnosis is made, deplors the fact that "pulmonary cancer is frequently labeled tuberculosis because of lack of effort to establish a correct diagnosis." He further remarks that "it is only within a very few years that a diagnosis has been made with any degree of surety during life, and even at the present time, with rare exceptions, far advanced cases are the ones that come under our observation." Such status emphasizes that there still prevails insufficient knowledge among the rank and file of the profession regarding pulmonary malignancy, and any additional report that might shed some light on this subject, especially as regards early diagnosis, is deemed worthwhile.

Incidence

In a previous publication² reference was made to the prevailing belief that pulmonary malignancy is on the increase. In 1922, Ewing³ stated that the incidence is about 1 per cent of all cancers and 0.36 per cent of all necropsies. Weller⁴ more recently reports an increase from 0.5 to 2 per cent in all autopsies, while Funk⁵ considers bronchial carcinoma the most common intrathoracic neoplasm. Improved diagnostic methods are apparently not solely responsible for this phenomenon. A satisfactory explanation has not been offered. Since this question is closely related to the problem of etiology, it will be discussed under that heading.

Etiologic Factors

The irritation theory is too familiar to warrant further elaboration. It is based

principally on the observation that inflammatory hyperplasia is capable of giving rise to a new growth. Menetrier⁶ thinks that carcinoma of the lung, as elsewhere, is not a primary affection but rather a consequence of an antecedent inflammatory process of long standing. Askanazy⁷ found patches of squamous epithelium replacing the columnar ciliated epithelium of the trachea and bronchi in thirty-eight out of ninety fatal cases of influenza. Epithelial metaplasia, in his opinion, predisposes to tumor formation. Such histologic studies and the frequency of a preceding history of influenza or other acute respiratory infections led many authors to attribute the increase of pulmonary malignancy to influenza and particularly post-influenzal infections. Among several causes, Stivelman⁸ mentions the "gasoline age" and its production of deleterious gases.

Pulmonary Tuberculosis and Carcinoma

Concerning the relationship between pulmonary tuberculosis and malignancy, there is considerable controversy. Ewing³ states that the chief etiologic factor in pulmonary neoplasms is tuberculosis and cites as evidence the appearance of carcinoma in diseased lung tissue. Barron⁹ believes that the increased incidence is probably due to fore-running inflammatory conditions, the most important of which is tuberculosis. Menetrier⁶ advocates similar views and sees a parallelism between this association and the occurrence of malignancy at the site of lupus. Adler¹⁰, who in a series of 374 cases found twenty-two of coincident tuberculosis and cancer, twelve of which were verified by autopsy, was a follower of the same school of thought.

The opponents of these views cite Rokitski, who is said to have had the largest autopsy experience and who was the first to call attention to the high incidence of sclerosed tuberculosis in man. He was of the opinion that there is an antagonism between cancer of the lung and pulmonary tuberculosis. He probably was right, for the

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phthisiologist, familiar with the irritation and inflammation theories of cancer, wonders why the occurrence of pulmonary malignancy is not greater than the given maximum of 2 per cent of all autopsies, considering the high incidence and exquisite chronicity of pulmonary tuberculosis. Recent autopsy studies seem to confirm Rokitsanski's views. Of 282 primary lung cancer cases reported by Ferenczy and Matolcsy¹¹, forty-four showed obsolete apical lesions, calcified lymph nodes or an occasional old cavity, but only one showed active tuberculosis. In a series of 246 cases, Kilkuth¹² found twenty-two with some evidence of tuberculosis but did not consider the latter of any etiologic importance. Grove and Kramer¹³, reporting on twenty-one cases recruited from a large County Hospital whose patients showed a high incidence of tuberculosis, found only one case of associated malignancy and tuberculosis. In Simpson's¹⁴ 139 cases, forty-seven showed some evidence of tuberculosis, but in only six did the disease appear to be active.

Besides the above observations, we are inclined, from our own experience, to believe that there is no etiologic relation whatsoever between these two diseases. In a series of over 4,000 tuberculosis patients observed and treated during the past fourteen years for varying periods of time, we have encountered only nine cases of primary malignancy, and in only two of these was there an associated tuberculosis with bacillary sputum. However, the diagnosis in one of these two cases was based purely upon clinical and roentgenologic evidence and not confirmed by biopsy or postmortem findings. In a series of 100 autopsies on tuberculosis patients performed during the past six years and carefully studied by the Department of Pathology of the University of Colorado School of Medicine, only one instance of associated malignancy and pulmonary tuberculosis was found. In that case the diagnosis was made during life. The only warranted statement, therefore, that can be made regarding etiology is that, unlike cancer elsewhere in the body, we are entirely ignorant

of the cause or causes responsible for this disease.

Age and Sex

While no age is immune to malignant disease, malignancy of the lung is very rare in people under forty. In fact, all our patients in this small series ranged in ages between forty-four and sixty years. There seems to be, however, a definite predilection of this disease for men. In our series, there was only one woman. In Habler's¹⁵ forty-seven cases, there was likewise only one woman. No satisfactory explanation has been offered to account for this marked difference in the sexes. The problem becomes all the more perplexing in the light of the fact that a large number of women nowadays are subject to the same industrial hazards and the possible irritation from tobacco smoke as men. Habler believes that the difference in the type of breathing between the sexes and the greater average vital capacity of the lung in men are factors deserving of further investigation.

Clinical and Pathological Classification

Moses¹⁶ classifies his cases for diagnosis as follows: 1. Those upon whom a diagnosis can be made only by autopsy because of absence of respiratory symptoms during life or because the patient is seen in a moribund state when physical findings of malignancy are masked by other conditions. 2. Those upon whom a diagnosis can be made easily by reason of evidence of tumor growth in other parts of the body. 3. Those upon whom a diagnosis is based upon history, course of the disease, physical findings and absence of tumor growth in other organs.

Neuhoff¹⁷ classifies his 100 cases which came to autopsy into three groups: 1. Carcinoma of main bronchi, comprising 30 or 40 per cent. Bronchoscopy is positive and early metastasis is the rule. 2. Carcinoma which has been termed peripheral and which is derived from the smaller bronchi. The incidence of this type ranges also between 30 and 40 per cent of the cases and here too bronchoscopy is usually positive. 3. The so-called parenchymal tumor derived from one of the very small order of bronchi. Bronchoscopy is negative, but the x-ray is very distinctive. Ewing's³ classification,

however, based on histogenesis seems the best, for it helps one to understand more clearly the various clinical manifestations. He describes three types, namely, tumors arising from the bronchial mucous glands, those derived from the bronchial epithelium, and those originating in the pulmonary alveoli. In type 1 the tumor is nodular, usually of small size and gives microscopically the typical picture of adenocarcinoma. Stenosis is a frequent occurrence. In type 2, a mass may be found occluding a bronchus and extending throughout the lung and pleura. From progressive ulceration, the process may extend to adjacent bronchi. Localized stenosis, atelectasis, abscess, gangrene and hemorrhage may occur. A sero-sanguinous pleural effusion is not uncommon. The squamous or cylindrical variety of cell prevails. In type 3, the neoplasm may be diffuse or nodular and may involve one lobe or a whole lung with a consolidation of the affected area. Cavities from necrosis may form. The pleura is usually involved. The type of cell is the cuboidal or cylindrical.

Symptomatology

There is no one symptom or set of symptoms that can be said to be pathognomonic. The onset may be with a slight upper respiratory infection followed by a lingering cough with occasional blood streaked sputum or frank hemoptysis. Pain in the chest, gradually increasing in severity, may be an early symptom. A varying interval of freedom from symptoms is not uncommon. A temporary bronchial stenosis may give rise to acute symptoms with physical signs characteristic of lobar pneumonia. This consolidation is in effect due to atelectasis and, as aeration is re-established, clinical symptoms subside with corresponding roentgen evidence of improvement. If the consolidation fails to clear up rapidly the condition is often diagnosed for a time as unresolved pneumonia or caseo-pneumonic tuberculosis. One case in our series presented such clinical and roentgen manifestation. Pleurisy with effusion, subsiding with or without aspiration, adds to the confusion. The aspirated fluid is usually at first straw colored and its cytology is not unlike that found in

tuberculosis. It is these early symptoms that are so misleading and frequently lead to a diagnosis of pulmonary tuberculosis, for which patients are not infrequently treated for several months or years, before the true nature of the disease is recognized. Tubercle bacilli, of course, are invariably absent from the sputum. Late manifestations are progressive weakness, gradually increasing dyspnea and, as the tumor mass undergoes necrosis or uninvolved portions of the lung become infected, as is often the case when complete bronchial stenosis and subsequent atelectasis occur, the cough increases in severity and the sputum which heretofore had been chiefly mucoid in character, becomes purulent, often foul smelling and blood tinged. High fever, hectic flush, night sweats and diarrhea complete the picture of severe septic infection. Symptoms occasioned by metastases to other organs are frequent and the brain seems to be particularly vulnerable. Freeman¹⁸ states that in many neurosurgical clinics it has become the custom to make a careful radiographic study of the chest before exploring the cranium for a suspected tumor. Three of our patients had marked cerebral symptoms. Dysphagia from pressure or actual involvement of the esophagus by extension, aphonia or dysphonia caused by pressure paralysis of the recurrent laryngeal nerve, and marked engorgement of the veins of the neck, due to partial obstruction of the superior venae cavae, are occasionally observed. In one case large varices of the jugular and axillary veins were mistaken for lymph nodes and the true condition recognized only after an attempt was made to remove one of these nodes for microscopic examination. In Brown's¹⁹ case of complete obstruction of the venae cavae, a similar error was made.

Diagnosis

From a description of the symptoms it is obvious that an early diagnosis is difficult. In the initial stage the task of ruling out tuberculosis with reasonable certainty is by no means easy. However, recurring manifestations of cough and blood streaked sputum negative for tubercle bacilli and a roentgen film not characteristic of pulmonary tubercu-

losis should always arouse suspicion of malignancy. This likewise applies to recurring pleural effusions. During the stage of infection and suppuration, the condition may simulate pneumonia, abscess, gangrene or bronchiectasis. As glandular enlargements accessible for biopsy examination are very rare, though some authors speak of early supraclavicular adenopathy, this diagnostic procedure cannot be utilized. The examination of the sputum after it had been imbedded in paraffin and stained sections made has not proved of value in our experience. In not a single instance were cancer cells found. The two most valuable diagnostic aids are bronchoscopy and the x-ray. However, the former method is of value only when the growth is primary in the bronchus and accessible, or when it has invaded the bronchus. Biopsy material can during such examination be easily obtained, and thereby establish an unequivocal diagnosis. Our limited experience is at variance with that of Neuhoff¹⁷. Of five cases whose conditions permitted them to be examined by the bronchoscope, the procedure proved of definite diagnostic value in only one case. In early lesions affecting primarily the upper lobe bronchus or the smaller bronchi near the periphery, bronchoscopy is of little or no aid, but it should be employed routinely in every suspected case. The x-ray likewise has its limitations, especially in early cases. When pleural effusion, massive atelectasis or extensive suppuration occur, they cast uniform ground glass shadows on the x-ray film in no wise characteristic of malignancy. The cytology of the aspirated pleural fluid proved slightly helpful in only one case. As in other diseases, it is essential to carefully correlate the history, symptoms and physical findings with the information obtained from the clinical and roentgen laboratories.

To illustrate the vague and misleading symptomatology and the difficulties in diagnosis, the following case reports are briefly presented:

CASE 1

H. R., male, aged 47. Occupation: House painter. Admitted February 14, 1931, with a history of respiratory symptoms dating back to December, 1928, when he contracted a severe cold which confined him to bed for ten days. Since then there had been a persistent nonproductive

cough. For the following nine months he was treated for bronchitis without any results. About one year after onset, pain in the right shoulder and blood streaked sputum became manifest. An x-ray film of the chest taken at this time led to a diagnosis of minimal pulmonary tuberculosis, although repeated sputum examinations were negative. Notwithstanding the harassing cough, the patient was strikingly free from constitutional symptoms and was able to work until four months prior to admission when, on account of a four ounce hemoptysis, he was admitted to a New York hospital where a diagnosis of chronic fibroid pulmonary tuberculosis was made. He was discharged one week later as greatly improved.

While en route to Denver, seemingly feeling well, he was suddenly seized with severe pain in the right chest and increasing shortness of breath, which he attributed to the high altitude. The examination on admission here showed a well nourished man weighing 140 pounds. His average weight was 150 pounds. He appeared slightly anemic and considerably dyspneic. The general physical examination was negative except for the chest. The latter disclosed dullness to flatness on the right side with diminished breath sounds, and the x-ray film showed a ground glass opacity over the entire right lung field with slight displacement of the trachea to the right but little or no displacement of the heart and mediastinum. A diagnosis of pleural effusion was made, the underlying pathology of which could not be ascertained but was deemed in all likelihood to be tuberculosis in view of the past history. The aspirated fluid was straw colored and the cytology showed a preponderance of lymphocytes. As the sputum, which was mucoid on admission, became, several weeks later, purulent, slightly foul in odor and negative for tubercle bacilli, pulmonary suppuration was suspected. This was confirmed by aspirating thick foul smelling pus. The patient was too ill to be submitted to bronchoscopy. As a palliative measure rib resection was resorted to under paravertebral anesthesia by Dr. C. F. Hegner, who, after evacuating a considerable quantity of pus, found by digital exploration a fragile tumor mass at the root of the lung, part of which was removed for microscopic examination. Multiple small abscesses in the cardiohepatic angle were also found. These were broken up and several pieces of material were removed. The microscopic report by the late Dr. Becker was, "richly cellular carcinoma of the modified epithelial type undoubtedly bronchogenic in origin." The clinical course after drainage was instituted was, for a time, slightly better, but in view of the diagnosis the patient was returned home where he died a few weeks later. No autopsy was obtained.

In this case it is safe to assume that the persistence of respiratory symptoms with blood streaked sputum were due to a bronchial neoplasm probably involving the right main bronchus which, however, was compatible with a fairly useful existence until complete obstruction occurred followed by atelectasis and pulmonary suppuration. It is not unlikely that if malignancy had been suspected a bronchoscopic examination a year or two prior to admission here might have disclosed the true nature of the disease.

CASE 2

H. S., male, aged 53. Occupation: Building contractor. Admitted March 4, 1932, with a history of respiratory symptoms of eight months duration. Without any preceding upper respiratory infection he noticed slight cough and vague

pain in the right upper chest and shoulder. These symptoms were so mild that medical aid was not sought until three months later when, following a severe cold associated with fever, he entered a general hospital where a diagnosis of right upper lobar pneumonia was made. This diagnosis was based upon physical signs and the x-ray film. The latter showed a dense consolidation. After three weeks of hospitalization, the patient improved and clearance of the lung was noted on the x-ray film, but on account of a persistent thickening in the interlobar region associated with subfebrile temperature, the possibility of an effusion, lung abscess or pulmonary tuberculosis was suspected. While at home weakness, dyspnea, night sweats and blood tinged sputum were the principal clinical manifestations.

On admission here the patient appeared quite ill and the temperature ranged between 100° F. and 102° F. An x-ray film at this time showed complete consolidation of the right upper lobe with slight retraction of the trachea to the right. On March 18, 1932, following an attack of uncontrollable coughing, he raised four ounces of bright red blood. This was followed by a decrease in cough and dyspnea and a general feeling of well-being. Three days later roentgenoscopy showed a definite decrease in the density of the right upper lobe, indicating that at least partial aeration had been re-established. A diagnostic pneumothorax was performed and anteroposterior and lateral chest films were obtained. These outlined a dense globular mass involving the upper lobe and between the fifth and eighth costovertebral junctions an oblong mass with ragged edges could be readily seen. The latter shadow was interpreted as enlarged mediastinal lymph nodes, probably due to metastasis. Bronchoscopic examination performed by Dr. Herman Laff showed marked edema of the right main bronchus with evidence of some narrowing of the lumen interpreted as being due to external pressure. A definite diagnosis of primary carcinoma was made and roentgen therapy instituted. One week after the first treatment several firm, irregular nodules were detected in the right supraclavicular region and in the corresponding axilla. Surgical exploration for the purpose of obtaining a specimen for microscopic study proved these nodules to be thrombosed varices. One small lymph node removed from the axilla showed microscopically only inflammatory changes. An extensive pleural effusion developed after the second x-ray treatment. The aspirated fluid was serous in character. Cytology and bacteriologic studies did not yield any important information. Progressive asthenia, marked confusion and emaciation were the terminal symptoms. Death occurred on April 11, 1932, approximately ten months after the onset of symptoms. The autopsy showed the main bronchus going to the right upper lobe markedly stenosed and plugged in its distal portion by a greyish-brown mass. The parenchyma showed varying degrees of atelectasis. The final anatomic diagnosis by Dr. Paul Guttman of the University of Colorado School of Medicine was as follows: "Carcinoma of right lung with metastases of the posterior lymph node and the pancreas; chronic passive congestion of both lungs; thrombosis of jugular, axillary and brachial veins."

In this case there is no doubt of the bronchogenic origin of the neoplasm. When the patient became acutely ill with what appeared to be lobar pneumonia, the condition was really due to atelectasis following complete bronchial obstruction. Improvement followed when the bronchial stenosis

subsided partially. The temporary improvement noted in our hospital after a four ounce hemoptysis is given the same interpretation.

CASE 3

A. L., male, aged 44. Occupation: Hardware merchant. Admitted April 8, 1932. An interesting point in the previous history is that while he always enjoyed good health he had been subject for many years to autumnal upper respiratory infections incapacitating him for from three to seven days. The onset of the present illness occurred in August, 1931, with a protracted chill followed by the usual rhinopharyngitis and laryngitis. The temperature ranged between 101° and 103° F. for five days. However, on account of slight pain in the left chest, accompanied by weakness and some dyspnea he remained in bed for three weeks, following which he felt greatly improved and able to pursue his occupation for the subsequent two months. On November 28, 1931, after a hard day's work, he was seized with a protracted paroxysm of cough which did not subside until he raised several mouthfuls of blood. During the following three weeks he was in bed with fever ranging between 97° F. in the morning and 101° F. in the evening. On December 24, 1931, he was seized with sharp pain in the left chest accompanied by rapidly increasing dyspnea. A diagnosis of pleural effusion was made. Considerable relief followed the aspiration of several hundred c.c. of serous fluid. Up to the time of his admission here he had several hemoptyses. This symptom and the pleural effusion led to a definite diagnosis of pulmonary tuberculosis by several physicians who treated him or saw him in consultation.

Our examination disclosed no abnormalities except in the left chest, where the breath sounds were diminished above the fifth rib and sixth dorsal spine and dullness to flatness with complete absence of breath sounds below. The radiographic film showed marked contraction of the left lung with displacement of the heart and mediastinum towards the affected side. With a history of repeated hemoptyses and a pleural effusion, the roentgen findings were not considered incompatible with a unilateral pulmonary tuberculosis notwithstanding the fact that the sputum was mucoid and negative for tubercle bacilli, but the excellent state of nutrition, the moderate hypertension along with negative sputum suggested the possibility of some other condition.

The subsequent clinical course proved very interesting. During the first four weeks of observation the temperature was within normal limits; there was no cough or expectoration and, in general, he felt greatly improved. However, he was annoyed by occasional regurgitation of small amounts of liquid material shortly after meals. The weight remained stationary. More than the usual difficulty was encountered in introducing a small tube for the extraction of a test meal. The gastric analysis showed a slight hypoacidity, but the administration of acid failed to relieve the symptom. Roentgenoscopy at the suggestion of Dr. Harry Gauss disclosed a moderate dilatation of the upper portion of the esophagus with a spasm below. The stomach showed no filling defects. A tentative diagnosis of cardiospasm was made, but the usual anti-spasmodic medications failed to afford relief.

On May 17, 1932, the temperature mounted suddenly to 103° F. after a severe and protracted chill accompanied by dull pain in the left chest. Evidence of fluid in the left pleural cavity was noted a few days later, and the fluid aspirated was sero-sanguinous but gave no growth on cul-

ture media and was negative for tuberculosis. The cytology showed a preponderance of lymphocytes. Paraffin sections of the fluid showed no abnormal cells. The bronchoscopy performed by Dr. Herman Laff disclosed obstruction of the left main bronchus by a tumor mass, and an esophagoscopy showed a narrowing at the point corresponding to the region of the bronchial obstruction. Two pieces of tissue from the bronchus were removed. Microscopic studies were made by Doctors E. R. Mugrage and Paul Guttman, both of whom reported a squamous cell carcinoma. The subsequent course was rapidly progressive. The patient was returned home on June 14, 1932, with the recommendation that he be placed in a general hospital for radiation therapy. He died on September 3, 1932, thirteen months after the onset of symptoms.

In this case the symptoms were very confusing. Nevertheless, the possibility of malignancy should have been given earlier consideration. In the "early diagnosis" campaign conducted annually by the National Tuberculosis Association, physicians are urged to be "tuberculosis minded." It seems that in the anti-cancer campaign physicians must assume a similar attitude, remembering that primary cancer of the lung is decidedly more common than had been heretofore supposed.

CASE 4

N. H., female, aged 57. Occupation: Housewife. Admitted April 8, 1932, with a history of non-productive cough, pain in the right shoulder, increasing dyspnea and weakness during the preceding nine months. She developed a right sided pleural effusion about two months before admission. This symptom, together with cough and weakness, led to a diagnosis of pulmonary tuberculosis.

On admission there was evidence of considerable dyspnea and moderate emaciation. The general examination was negative. On account of epigastric distress, gastric analysis was performed with negative results. Roentgen films of the gastrointestinal tract were likewise negative. The chest film showed a homogenous ground glass opacity over the entire right lung field. Bronchoscopy was apparently negative. An x-ray film after the introduction of 20 c.c. of lipiodol into the main right bronchus did not furnish sufficient information to warrant a definite diagnosis.

To relieve the distressing dyspnea, the right pleural cavity had to be aspirated every seven to ten days with removal each time of from 500 to 700 c.c. of serosanguinous fluid. The latter was negative for tubercle bacilli on animal inoculation. Various culture media yielded no growths. The cytology showed a preponderance of lymphocytes. Paraffin sections of the pleural fluid were studied by Dr. Paul Guttman, who noted "small clusters of deeply staining partially desquamated epithelial cells, suggestive but not conclusive of tumor cells." The patient was returned home on May 24, 1932, because all available evidence pointed to malignancy.

During residence there was a loss of sixteen pounds in weight, making a total loss of thirty-two pounds in six months. Her subsequent clinical course as reported by her attending physician at home was characteristic of malignancy, namely, rapid emaciation, marked asthenia and high fever. Radiation therapy seemed to have little or no effect. There was no evidence until the end of any metastasis.

The diagnosis of tuberculosis in this patient was at no time warranted. A non-productive cough in a person 57 years old followed later by

pleural effusion should have aroused suspicion of malignancy instead of tuberculosis. The persistent pleural effusion rendered the x-ray of little value in diagnosis. The negative bronchoscopy suggests that the neoplasm probably originated in one of the very small bronchi.

CASE 5

M. R., male, aged 56. Occupation: Dealer in automobile accessories. Admitted April 21, 1929, with history of illness of seven weeks duration. The first complaint was fatigability which he attributed to over-work. In addition, he experienced moderate anorexia and within three weeks there occurred a loss in weight of twenty-five pounds. It was not until three weeks prior to admission that gradually increasing cough, expectoration, night sweats and fever became manifest. One week before admission he experienced pain in the left chest.

Physical examination on entrance here disclosed a well developed poorly nourished man, who appeared acutely ill and mentally confused. There was no dyspnea or cyanosis and no adenopathy. The only abnormal chest findings were on the left side, where bronchovesicular breathing with marked increase in the whispered voice was noted from the third rib and fourth vertebral spine with coarse mucus rales in that region. Marked diminution to nearly complete absence of breath sounds with dullness to flatness in the region of the lower lobe was noted. Ophthalmoscopic and neurologic examinations were negative. The mental condition was considered by Dr. C. S. Bluemel as a toxic confusional psychosis. The chest film showed in the left lung field irregular rarefactions above the second rib and between the second and sixth ribs there was a dense oval-shaped shadow merging with the mediastinal structures. The mediastinum appeared wider than normal and its right border was convex.

Although the sputum was positive for tubercle bacilli, an associated malignancy was suspected because of the rapid clinical course, absence of breath sounds over the lower lobe, marked emaciation and cerebral manifestations. About one week after admission, there occurred urinary retention necessitating catheterization every eight hours, but the urine was negative. On the afternoon of May 8, 1929, the temperature mounted to 106.8° F., following a protracted chill. The blood findings were essentially negative except for a moderate leucocytosis. The cytology of the spinal fluid was normal and tuberculous meningitis was ruled out by animal inoculation. Rectal examination was negative and a cystogram showed nothing abnormal in the bladder. Death occurred on May 9, 1929, the terminal manifestations being those of cardiac failure and pulmonary edema. Autopsy was refused.

CASE 6

J. M., male, aged 60. Occupation: Merchant. Admitted May 31, 1932, with a history that he had been in excellent health until a year ago, when he contracted a "cold" from which he did not fully recover. There was a persistence of slight cough and expectoration. However, he was able to work until three months ago, when on account of weakness and increased cough and expectoration, he sought hospitalization.

Physical examination on admission showed evidence of a bilateral upper lobe fibroid pulmonary tuberculosis with cavitation, the major involvement being on the right side. The sputum was positive for tubercle bacilli. During the first four months of his residence the clinical course seemed to be uneventful. There was an improvement in

the general condition, the patient was ambulant and afebrile and a gain of four pounds in weight was noted. He then began to complain of weakness, some dyspnea and an evening fever up to 101° F. The chest findings, confirmed by fluoroscopy and roentgen films, were those of progression of the pulmonary lesion on the right side. These symptoms were gradually becoming worse and there was a steady loss in weight at the rate of about four pounds each week. One month later cerebral symptoms, principally drowsiness and general confusion, predominated the picture. Neurologic examination excluded with reasonable certainty the possibility of tuberculous meningitis. It was the marked cachexia together with the cerebral symptoms that led to a suspicion of associated malignancy and that the rapid involvement of the right lung was probably not caused solely by tuberculosis. Two weeks before death a pleural effusion developed which aggravated the already existing distressing symptoms. Death occurred nineteen months after the onset of pulmonary disease. The necropsy showed on the right side an old upper lobe fibrocavernous tuberculosis and the lower two lobes were involved in an extensive neoplasm, the main mass arising from the root of the lung with the lower lobe bronchus completely obstructed. The histologic classification was squamous cell carcinoma.

The last two cases were cited as examples of associated malignancy with tuberculosis. Although in one of these cases the diagnosis was not confirmed by autopsy, yet the fact that in the second case the clinical manifestations paralleled so closely those of Case 5, we are justified in including also Case 5. These are the only two cases in our experience of associated malignancy and tuberculosis, a condition which, in our opinion, is exceedingly rare, although it is not unlikely that such conditions are overlooked and interpreted as progression of the pulmonary tuberculosis instead of a coincident malignancy.

Summary

In a period of fourteen years of exclusive practice in tuberculosis sanatoria, only nine cases of primary carcinoma of the lung have been observed, eight men and one woman. On three of these cases a separate report appeared in 1924. Among the six cases constituting the basis for this report, four had symptoms simulating pulmonary tuberculosis, but a more careful clinical analysis might at least have led to a suspicion of malignancy and the necessary diagnostic procedures instituted. In two patients there was an associated pulmonary tuberculosis. While preceding inflammatory conditions of the lung, notably influenza and tuberculosis, are considered by many observers as impor-

tant etiologic factors, this has not been borne out by our experience. Case 6, however, is an illustration of how the clinician may be deceived when a careful clinical study is not made. For several weeks the progressive symptoms in this case were attributed to a spread of pulmonary tuberculosis, whereas in effect it was a spread of the malignant disease. This emphasizes the necessity of being always on the alert for coexisting diseases and not attributing every symptom to the clinical entity under observation. It is also noteworthy that in some patients the onset of malignancy was insidious and the disease pursued for some time a benign course. It is during this period and before bronchial stenosis with atelectasis and suppuration occurs that an early diagnosis can prove of value. The possibility of successfully treating early bronchial neoplasms by means of radiation therapy, as reported by Pancoast²⁰ and his associates, is very significant. X-ray and bronchoscopy should be resorted to routinely in every case. The latter is of especial value when it is possible to obtain a piece of tissue for microscopic examination. Cerebral symptoms in an individual suffering from obscure pulmonary symptoms should always arouse suspicion of malignancy.

Conclusions

1. There is no apparent etiological relationship between pulmonary tuberculosis and carcinoma of the lung.
2. The coexistence of active pulmonary tuberculosis with carcinoma is rare.
3. The early differential diagnosis of these two diseases is extremely difficult.
4. Roentgenologic and bronchoscopic examinations are valuable aids in diagnosis but have definite limitations.
5. Respiratory symptoms simulating pulmonary tuberculosis in a person past the age of 40 when the physical and roentgen findings are either entirely negative or atypical for tuberculosis warrant a tentative diagnosis of malignancy until proved otherwise.

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CANCER OF THE ESOPHAGUS*

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The esophagus is a muscular tube 22 to 30 cm. in length and 4 to 6 cm. in diameter which extends from the pharynx to the stomach. The course of this tube is not direct. It curves slightly to the left at its beginning in the pharynx, deviates again somewhat to the right about midway and again to the left when it enters the stomach. There have been as many as thirteen points of narrowing described. Only three, however, are worthy of particular mention:

1. At the beginning of the esophagus.
2. At its middle point where it comes in close contact with the left bronchus.
3. Just above its entrance into the stomach.

Microscopically the esophagus has three well-defined coats:

1. External or muscular.
2. Middle or areolar.
3. Internal or mucous.

The course of the esophagus is in the posterior mediastinum and takes part in the movement of the mediastinum, accommodating itself easily to marked displacements whether these are caused by traction or by

pressure. Extreme mediastinal displacement rarely, if ever, produces any symptoms directly referable to the esophagus.

Incidence of Cancer of the Esophagus

The most common malignant tumor of the esophagus is carcinoma, although sarcoma has been described. Osler states that in 3,882 autopsies in the Royal Victoria Hospital in Montreal, 265 showed carcinoma, and 24 of these were carcinoma of the esophagus or slightly more than one-tenth of 1 per cent.

Age and Sex

As in other carcinomas, carcinoma of the esophagus is more frequent in the later years of life. Males predominate over females in the ratio of about four to one.

Diagnosis

This is made by symptoms and signs. The first symptom is difficulty of deglutition. This is noticed first when an attempt is made to swallow a bolus of dry food. Later, the swallowing of semi-solids becomes difficult, and finally liquids cannot be swallowed. Coincident with the difficulty of swallowing, regurgitation of food is noticed. This is usually within the first half hour after eating but may be somewhat delayed. The food is undigested, and the regurgitated ma-

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terial does not contain free hydrochloric acid or products of gastric digestion.

Frequently in the course of the disease swallowing for a time becomes easier. This is explained by the fact that in ulcerative carcinoma portions of the tumor are broken away by the impact of the food and the lumen becomes larger for the time being. Pain is usually sub-sternal in character and increased by the ingestion of food. Cachexia is marked early in the course of the disease due to the inability to ingest the proper amount of nourishment.

Physical examination is usually negative. Further examination is made by direct esophagoscopy and more particularly by means of the roentgen ray. Before the advent of x-ray, diagnosis of carcinoma of the esophagus was made fairly frequently and satisfactorily by means of bougies. The diagnosis depended upon feeling the obstruction, and in the case of ulcerative carcinoma the tip of the bougie showed blood stains. The advantages of direct esophagoscopy are usually those of differential diagnosis only.

X-ray diagnosis: This is the most important procedure in the diagnosis, is without danger to the patient, and is easily carried out. The patient must be in an oblique position, otherwise the outline of the esophagus is not seen, particularly if the sternum is thick. The patient is best placed before the fluoroscope and told to swallow a rather thick barium mixture. The obstruction is then easily noted and if at all marked there is abundant time for taking of plates for further study. Fluoroscopy and plates are best taken in the upright position. If, however, a definite constriction is noted and it is decided to discover the amount of dilatation below the stricture, the patient is placed in a prone position with the head low and the exact filling defect below the stricture can be made out. If a stricture is noted, it is usually quite easy to determine whether this is of extrinsic or intrinsic origin.

Extrinsic causes of stricture: Tumor, particularly bronchogenic carcinoma, aneurism, fibrosis of lungs, et cetera.

Intrinsic strictures other than carcinoma of the esophagus may be caused by foreign

bodies, particularly chicken bones. Cicatricial changes due to the swallowing of escharotics must be borne in mind. Strictures by extrinsic causes present a very characteristic and different picture from that of intrinsic strictures due to carcinoma.

The differential diagnosis between diverticulæ and carcinoma of the esophagus occasionally causes some difficulty. In the x-ray picture of diverticulæ the stage of the diverticulum is of the utmost importance. Lahey has divided diverticulæ into three distinct stages: First, pushing out the wall at practically a right angle to the lumen of the tube. Second, when the diverticulum becomes more marked, extending downward parallel to the tube but not constricting by pressure from below. Third, when there is constriction from the continuously filled diverticulum practically obliterating the lumen of the esophagus. So-called cardiospasm usually presents little difficulty in diagnosis. The following cases are typical:

CASE 1

J. C. A., aged 71. First seen, June, 1930. No complaints except those which were presumed to be referable to old age. Examination, negative. In March, 1931, complained of increasing weakness, some shortness of breath, and occasional hoarseness. He was referred to a competent laryngologist where a negative report on the larynx was made. Symptoms grew worse and in December, 1931, about nine months after the onset of symptoms, there appeared difficulty in swallowing. There was progressive weakness and marked loss of weight. In February, 1932, an x-ray was taken with barium showing evidence of constriction of the esophagus at the extreme upper portion. So far as could be determined, the barium went freely into the stomach after passing this constriction. His condition continued to grow worse and he died March 17, 1932, one year after the onset of symptoms.

Autopsy: Marked constriction, immediately below the cricoid cartilage. No definite tumor mass noted on the outer surface of the esophagus, the entire obstruction being from within. Below this point the esophagus is patent throughout and stomach normal. No metastases were seen.

Pathological report: 5 cm. below the larynx the wall of the esophagus is thickened to a maximum diameter of 1.5 cm. The thickening is hard, white, and of an infiltrative character, extending somewhat into the surrounding areolar tissue. Immediately below this the esophagus shows dilatation about 4 by 5 cm. This thickened area is made up of solid cords and masses of large, irregular epithelial cells.

Diagnosis: Carcinoma of the esophagus.

CASE 2

R. E. S., aged 60. First seen August 3, 1928. Complaint was loss of weight and appetite, some cough and expectoration since October, 1927. Examination showed far advanced bilateral pul-

monary tuberculosis. Sputum, positive for tubercle bacilli. In September, 1928, there was some difficulty in swallowing, sub-sternal pain, and regurgitation of food. Symptoms increased in severity and in January, 1929, an x-ray showed marked constriction of the esophagus at about the junction of the upper and middle thirds with a very characteristic shadow. Patient was referred to the Colorado General Hospital for esophagoscopy. This procedure was not successful and on January 22, 1929, a gastrostomy was done. Patient died March 6, 1929.

Autopsy: Tumor, in the location noted in the x-ray, was ulcerative in character and had penetrated the left bronchus and the mediastinum producing large mediastinal abscess. It seemed probable that the rupture was first into the mediastinum and secondly in the left bronchus.

Pathological report: Squamous cell carcinoma of the esophagus.

CASE 3

As a matter of differential diagnosis, report is made of a fatal case of diverticulæ of the esophagus. G. H. K., aged 69, was first seen August 31, 1932. There had been some fulness in the throat for the past four months and hoarseness for the past week. If the patient ate rapidly, there was definite regurgitation. No marked pain. Physical examination, negative. No cachexia. X-ray plate and fluoroscopy showed very large amount of barium remaining in upper part of esophagus with rather irregular shadow. Tentative diagnosis of diverticulæ of third degree was made. Esophagoscopy was advised as a further diagnostic procedure. He was referred to Colorado General Hospital for esophagoscopy and a report of the procedure is as follows:

A diverticulum of the esophagus leaves the esophagus and drops to the left and posteriorly. Mucous membrane, highly congested, swollen, and bleeds easily. No evidence of malignancy.

Immediately following the procedure of esophagoscopy, which was done under general anesthesia, the patient complained of extreme shortness of breath, and a few hours following the operation a diagnosis of pneumothorax on the right side was made. Air was withdrawn at times to relieve the dyspnea. On the second day, free fluid was withdrawn in large quantities, purulent in character. Patient died September 4, 1932.

Autopsy showed a very much elongated diverticulum with very thin walls which had ruptured apparently during the procedure of esophagoscopy into the right pleural cavity. The walls of this diverticulum were of tissue paper thickness.

Treatment

The treatment of cancer of the esophagus at the present time divides itself into surgical and radiological. Therapy appears to be about 100 per cent unsuccessful. Billroth states that possibly one out of thirty cases is operable. Reports on radium treatment are not encouraging. On the other hand the treatment of diverticulæ is apparently very well and successfully carried out surgically.

Stenosis of the esophagus from other intrinsic causes is best treated by bronchoscopy. The utmost care must be taken in making the diagnosis, but once the diagnosis of carcinoma of the esophagus is made the prognosis is exceedingly unfavorable.

SARCOMA OF THE CERVIX UTERI*

EDWIN W. PERROTT, M.D.
DENVER

In presenting a case of sarcoma of the cervix uteri with a brief review of the subject, I do so not with any idea of adding anything particularly new but to draw your attention to the possibility of such a condition in what appears to be an ordinary ulceration of the cervix, and to add a reasonably well-proved case to the scant number thus far reported.

Historically, the condition was first described by C. Mayer in 1860. Four years later a group of uterine sarcomata were described by Virchow. Since then occasional cases have been reported. Gessner seems to have been the first to attempt to

definitely classify the various types of sarcomata that occur in the cervix and body of the uterus. There always appears to be dissension and marked difference of opinion among pathologists regarding the classification of these sarcomas, and, in many of the reported cases, question arises among different observers as to their being sarcomas.

Incidence

The frequency of these cases is difficult to state but, suffice it to say, they are very rare. Williams reported a case in 1894 and, at that time, could only find thirty-four cases in the literature; some of them were questionable. Bettinger, in 1909, collected thirty-three cases in the literature; Piquand collected forty-one cases of other than race-mose sarcoma. Momigliano, in an extensive

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review of the literature in 1926, states his belief that there are only seventeen genuine cases on record. Statistics as to frequency vary from Gessner, who gave the frequency compared with sarcoma of the body of the uterus as 12 per cent, to C. Norris, who states that there is one sarcoma to every 418 cases of carcinoma involving the uterus.

From the records of some of our Denver hospitals, I was able to gather the following figures:

Number of hospitals studied, 5, over period of thirty-four hospital years.

Total Admissions	172,361
Total Number of Cases:	
Carcinoma Cervix	458
Carcinoma Body	195
Sarcoma Cervix	1
Sarcoma Body	2

(Both in degenerating fibromyoma uteri. Both in same hospital).

From this it would appear that there is a slight chance of any of us seeing more than one of these cases in a lifetime.

Pathology

From a pathologic standpoint, the various possibilities of origin and accurate classification must be ignored in this short paper. There are clinically, from the standpoint of gross anatomical changes, two main varieties:

1. Racemose type—where grape-like clusters, polypoid in type, protrude from the cervical canal or from the outer surface of the cervix. These are regarded by Ewing as being an outgrowth of the

2. Diffuse type—which, arising from some of the cervical tissues, infiltrates rapidly and produces necrotic, infected, ulcerated tissue. This, grossly, cannot be differentiated from a badly lacerated and infected cervix or a carcinomatous cervix.

Microscopical examination of the racemose type shows a cyst-like mass covered by a single layer of epithelium and a matrix composed of large round, spindle and branching cells which are separated from one another by clear spaces. The diffuse type is subject to wide variations. The histo-pathology of some of these tumors is at times extremely inconsistent and the diagnosis difficult because of the diverse histological pictures presented. Round cell,

spindle cell, melano-sarcoma and angio-sarcoma are recognized.

Symptomatology

The earliest symptom of the disease is a thin, watery discharge, irritating in character, and out of all proportion to the gross pathologic picture. Later, the discharge becomes thicker; as ulceration progresses, it may be bloody. From the very nature of the disease, there can be no other symptoms until it has progressed so far that severe local hemorrhages or progressive constitutional symptoms of some malignant change in the body make a diagnosis of malignancy easy and useless. All writers agree that the condition is rapidly progressive, producing both local and distant metastases, and is practically always fatal.

Diagnosis

It is impossible to make a clinical diagnosis of this condition except, perhaps, in the racemose type. Here, the observance of polypoid or grape-like masses coming from above the cervix should make one suspicious of sarcoma. This would have to be differentiated from ordinary polypi and the grape-like masses of hydatid mole. The diffuse infiltrative types would, if seen early, give the appearance of an ulcerated and eroded cervix, possibly with more necrotic change than is common; from the destructive changes, carcinoma is more likely to be suspected. The only hope of early and safe diagnosis, while there is hope of cure, lies, as in the case of carcinoma, in suspicion of all cervical ulcerations and prompt excision of tissue for microscopic diagnosis.

Treatment

As with carcinoma of the cervix, the treatment of sarcoma may be summarized under two main heads:

1. The older, total hysterectomy (Wertheim) with as wide excision of all tissues as possible, is still the choice of many and offers the same hope of success as does a similar operation in carcinoma.

2. The newer method of treatment embracing various combinations of cautery, radium and deep x-ray therapy, is coming more and more into preferred use. From the statistics of the treatment of carcinoma

of the cervix it would seem that some combination of this second method is the one of choice.

CASE REPORT

Mrs. H. W., white female, aged 26. Para. 1. I first saw her on Oct. 17, 1927, in the wards of the Denver General Hospital where she had been admitted because of a profuse vaginal discharge which was occasionally bloody in character. Her general history was negative. The only possible significant point of interest was a difficult labor three years previously; high forceps were used with severe tearing and laceration of the cervix and pelvic floor. There had been no pain or loss in weight since the onset of the present illness about one year before entering the hospital. The menstrual history was negative.

Laboratory findings: Urine, negative; blood Wassermann, negative.

General physical examination was negative.

Gynecologic examination revealed a multiparous outlet with moderate rectocele and cystocele. There was no evidence of skenitis or Bartholinitis. The uterus was small, anteflexed and anteverted, fixed in position. Adnexa, not palpable. There was no induration of either broad ligament. Speculum examination revealed a badly torn and eroded cervix. There was a long scar extending down the full length of the vagina on the right side.

Impression: 1. Chronic endocervicitis. 2. Rectocele and slight cystocele. 3. Possible early malignancy of cervix.

Operation was performed on October 17, 1927. Since the ulcerated and necrotic appearance of the tissue led me to suspicion malignancy, a biopsy was taken and a frozen section made immediately. These sections showed only marked inflammatory reaction. Because of the extensive erosion and infection, the only procedure at this time was a thorough cauterization of the cervix. The patient made an uneventful recovery and was discharged October 26, 1927.

Routine paraffine sections made in the laboratory at a later date resulted in a change in diagnosis by Dr. W. S. Dennis to that of sarcoma: "A new growth of tissue with a highly inflammatory reaction. This is confined to just one area not included in the frozen section. Here the growth is typical of malignancy. Diagnosis—sarcoma."

Because of the rareness of this condition, Dr. Dennis requested pathological consultation. The slides were submitted to Dr. Philip Hillkowitz. He reported as follows: "Sections reveal glands lined by columnar epithelium which shows no tendency to atypical proliferation. The stroma, however, between the cells is filled with numerous round cells of various sizes with deeply staining nuclei. Many of them show mitotic figures. A fine stroma is seen running between the cells. The growth is entirely atypical. Diagnosis: Mixed cell sarcoma of the cervix uteri."

More recently, the slides were reviewed by Dr. E. R. Murrage, of the University of Colorado School of Medicine, who confirmed the previous diagnoses.

The patient was taken to Mercy Hospital where on November 23, 1927, considerable cervical tissue was removed followed by deep cauterization of the cervix. Fifty milligrams of radium element screened by 1 mm. of brass and rubber was placed in the remains of the cervical canal where it was left for ninety-six hours—a total of 4800 mg. hrs. Aside from a diarrhea, caused by the radium,

and some general reaction, she made an uneventful recovery.

Deep x-ray therapy was given by Dr. H. P. Brandenburg in February, 1928. Subsequent examinations showed that she had gained some weight but the ulceration in the cervix persisted and seemed unusually slow in healing. In July of the same year she began to lose weight. One month later she had a severe hemorrhage which necessitated packing. Following this, an additional 50 mg. of radium element screened with 1 mm. of brass and rubber was deposited in the cervix and left for seventy-two hours—in hopes of controlling the recurrence. This resulted in a vesico-vaginal fistula. Her general condition improved rapidly; there was no further bleeding and the cervical ulceration healed rapidly. There was no evidence of any further new growth. The fistula, however, persisted.

Continued good health with no evidence of recurrence led to a serious consideration of treating the vesico-vaginal fistula. There was such an abundance of scar tissue that it seemed impossible to offer any hope of surgical closure. The alternative of ureteral transplantation was offered. This was performed in December, 1931, at the Denver General Hospital, by the late Dr. Robert Coffey of Portland as a demonstration of his technic. It has proved successful. She is now in very excellent health—six years after her first consultation.

Conclusion

I offer this case for two purposes:

1. To draw your attention to the possibility of this rare condition, cervical sarcoma.
2. To demonstrate that sarcoma as well as carcinoma can be cured by the combined use of cautery, radium, and deep x-ray therapy.

ABSTRACT OF DISCUSSION

Leonard Freeman, M.D., Denver: Dr. Giese made the statement that in at least the beginning stages of carcinoma of the esophagus the field was open for surgery. That was probably true a number of years ago and quite a series of operations were done by Willy Myer of New York and by others and by a number of surgeons abroad. But after following up the cases I think the opinion has very largely changed and men have become quite skeptical as to whether much can be accomplished, in the long run at least, by operations upon carcinoma of the esophagus.

I have operated on two cases, and my results were such that they didn't engender very much enthusiasm about what could be done. Both cases were operated on by the abdominal route and were apparently quite favorable. A nodule the size of a lemon was present in each at the lower end of the esophagus, involving the upper end of the stomach. As far as I could tell there weren't any glands enlarged, and it had not spread far on to the stomach nor far up the esophagus. By an incision parallel to the ribs on the left side I got quite a good exposure in each case. I was able to loosen with my finger the tumor at the lower end of the esophagus, and to pull it down as much as two inches, and cut it off. I also cut off upper portion of stomach, closed hole, and made new opening below into which the esophagus was stitched. Then a piece of

omentum was wrapped around the union. I should have done better, perhaps, if I had done a phrenicectomy upon the left side, to paralyze the diaphragm and enable me to bring it down more easily and unite it to the stomach to the diaphragm, which I did in rather an incomplete way in each case.

The first case lived three days and died with double pneumonia, without leakage as far as I could tell, although no autopsy was allowed. The second case lived only a few hours and died of shock. The results of cases that have been operated upon by other surgeons have been equally gloomy, if not immediately following the operation, at least after some days, weeks, or months.

The central portion of the esophagus does not offer as good a chance as the lower end. I think that the operations upon the medial portions of the esophagus have been largely given up. There are still those who stick to the operation, in so-called favorable cases, on the lower end of the esophagus, but I am not one of them.

Guttman, M.D., Denver: Dr. Bronfin has asked me to discuss the pathology of carcinoma of the lung. I had occasion to review and examine microscopically a number of cases and would like to give some of the findings.

The classification of primary carcinoma of the lung, at the present time, is very simple, based upon simply the anatomical classification—first the hilum type, then the nodular type, and third the diffuse type. This hilum type comprises the majority, approximately 90 per cent; the two other types are rather infrequent. Histologically we find three types—the cylindrical cell type, squamous cell type, and undifferentiated (the English use the word oat cell carcinoma). A classification based upon origin of the tumor is not practical because there is considerable dispute as to where these tumors arise. We know that a carcinoma arising at any point on the bronchial system, the main bronchus, bronchi, or even the alveolar epithelium may behave the same way.

The second case cited by Dr. Bronfin was "posted" and showed a very interesting growth. The growth began in the large bronchus leading to the lower lobe and showed some stenosis at that point. It spread into the lung along the peribronchial lymphatics and the perivascular spaces, infiltrating in all directions and accentuating the anatomical lobulation.

The diagnosis of carcinoma of the lung from the clinical and pathological standpoint is rather difficult. We often receive fluid from the pleural cavity and are asked to make a diagnosis of cancer. It is totally impossible to tell cancer from the appearance of a single cell. I believe attempts have been made to do so but it is very difficult if not impossible. Another fact we have to deal with is the degenerative changes that take place in the tumor cells. After remaining in the pleural fluid for any length of time, they become degenerated, and it is impossible to tell the morphology. The only hope we have of diagnosing cancer from the cells of the pleural exudate is by getting a fresh piece of tissue in which several cells are present and in which we are able to determine the relationship of one cell to the other and the morphology of the nucleus in relation to the cytoplasm. This happens occasionally but not very frequently.

I believe in one of Dr. Bronfin's cases some

sputum was examined in which a small lump of cells were noted and the diagnosis of carcinoma was made from that; a bronchoscopic examination, in which a small piece of tumor was removed from the bronchus, also enabled us to make a diagnosis of carcinoma.

Fred O. Kettlekamp, M.D., Colorado Springs: Of all the deaths from malignancy, 6 to 10 per cent are due to malignancy of the esophagus. This is quite a sizeable proportion and therefore should receive consideration accordingly. There are two types of carcinoma of the esophagus, the endo-esophageal carcinoma and the peri-esophageal carcinoma. Ninety per cent of the carcinomata of the esophagus are of the endo-esophageal type. This is a critically malignant growth. We should not be too discouraged, however. If we get them early, some very good results have been had by radiation.

In regard to the diagnosis, Jackson says that a great deal of our trouble arises from the fact that students in colleges are falsely taught in regard to carcinoma of the esophagus. They are taught that the history will, in these cases, show symptoms of pain, dysphagia, emaciation, cachexia, etc. Jackson says this is not conclusive evidence of carcinoma of the esophagus; it is only suggestive, and moreover, it is entirely too late to do your patient much good except palliation. Thus Jackson practically rules out the help that one can get from the history in making a diagnosis of the esophagus except that it gives you the first hunch. He says that every patient who has any difficulty in swallowing or any peculiar sensations or pain substernally or in the cervical region or lower down in the abdominal region, on swallowing, should be examined for carcinoma of the esophagus. He further says there are only two methods worthy of mention and one is x-ray and the other is esophagoscopy.

Pain is a common symptom of malignancy in most parts of the body but, peculiarly enough, pain is always a late symptom in carcinoma of the esophagus and is sometimes entirely absent throughout the course.

Ernst of St. Louis says there are many cases in which a roentgenologist can give a rather definite diagnosis of carcinoma of the esophagus but there are many in which he cannot. He may be misled by ulceration in the esophagus from a foreign body, by a benign tumor, a luetic lesion, a tuberculous lesion—therefore all these cases should be subjected early to esophagoscopy. Jackson's method at the Bronchoscopic Clinic in Philadelphia is always to first x-ray the patient carefully and then follow this with esophagoscopy invariably.

I was interested in what Dr. Freeman said about surgery. Surgery has not been all 100 per cent futile in carcinoma of the esophagus. Turck has one very phenomenal case which made a cure, has been cured for thirteen years. Duff Allen of St. Louis has operated one case with a carcinoma in the bifurcation region of the esophagus. That is the middle portion, which is conceded to be the most difficult portion to handle. He handled this case by taking the fascia lata from the thigh and implanting it around the esophagus—in fact, making a new esophagus in this region, and his case got along very well and I think is still free from any recurrence.

Of course the treatment of choice in many of

these cases, if they are gotten early, is irradiation. Jackson much prefers the deep X-ray, massive doses, as does also Ernst of St. Louis, although they both use the radium and the radon seeds.

C. H. Darrow, M.D., Denver: I was interested in the remarks of Dr. Bronfin relative to the incidence of carcinoma between women and men. I noticed he showed one case of carcinoma in a woman, carcinoma of the lung. I have never had occasion to see one and don't recall whether that was one associated with tuberculosis of the lung or not, but probably not. All the cases I have seen have been in men. It has been only a comparatively few years ago that we heard nothing of carcinoma of the lung. Last year I happened to see four cases in private and clinic practice. Some men claim that the apparent increase is due to a greater irritation of our respiratory tracts in this modern age, the so-called gasoline age. That might have some bearing upon the increase. We have all read of the deaths of miners in the cobalt mines, not only in this country but abroad, where a large per cent of the deaths of these miners has been attributed to carcinoma of the lung. Thus irritants may play a more important part than we usually think.

My observation has been that the pain and dyspnea are two outstanding symptoms of carcinoma of the lung. Pain is the one symptom that apparently brings the patients to the physician. They have more dyspnea than we usually see, especially in the early stages of tuberculosis.

I think it is recognized that the disc findings and the x-ray manifestations of carcinoma of the lung are sometimes very inconclusive and consequently I would like to make a plea for greater use of bronchoscopy. It certainly is the one method of making a definite diagnosis in these cases. They usually are bronchogenic in origin and consequently the use of the bronchoscope and removal of small section for biopsy is a definite method of diagnosis.

Dr. Giese said it had been his observation that most of the cases of carcinoma of the esophagus are in the middle third. That hasn't been my understanding. I have always thought that most of them occur in the lower end of the esophagus, the lower third, probably because that is the area of the esophagus that is exposed to greater irritation. In cases of stagnation, like in pre-ventriculosis, so-called cardiospasm, we have a stasis at that point. We have ulcerations of the esophagus usually at the lower end of the organ, and it is believed that some of these cases of carcinoma of the esophagus are simply extensions from the stomach. The cases that occur at the upper end of the esophagus are supposed to be usually found in women. Why this is is not well understood, except that there is some argument in favor of such irritants as hot fluids. This is substantiated by the fact that in the orient where there is a great deal of hot rice eaten, that even men show a marked incidence of carcinoma at the upper end of the esophagus. Of course in women we know that in the hypopharynx, carcinoma occurs much more frequently than it does in any other portion of the pharynx or in the larynx. This may be an extension from

the hypopharynx into the upper portion of the esophagus.

One point in the diagnosis of carcinoma of the esophagus is that early observation with a laryngeal mirror showing a stagnation of the saliva in the pyriform sinuses is frequently a marked help—not that it tells us carcinoma of the esophagus, but it tells us there is some obstruction in the esophagus which may, of course, be carcinoma and lead us to esophagoscopy. It is true that a great many of these cases die of pulmonary complications due to overflow of their own secretions into the lower respiratory tract.

As to the treatment, surgery has been disappointing and so has radium and deep x-ray therapy, but there are two methods of making these patients comfortable. One of them is the passage of an esophageal tube into the stomach, which makes these patients certainly much more comfortable, especially eliminating dehydration, and of course the other one is gastrostomy.

J. V. Ambler, M.D., Denver: The primary purpose of our paper was to emphasize that skin malignancies are most successfully treated by a combination of methods rather than relying upon one procedure. The surgeon usually excises and that is the end of it. It is a good method, and if the excision is wide enough the malignancy is destroyed. The disadvantage of this is that the cosmetic result, as a rule, isn't very good while with a combination of one of the surgical procedures and radiation together, usually one gets a better cosmetic result.

Radiation alone, obtains better cosmetic results than any other method, but recurrence here is fairly common and when recurrence does take place, it is a more difficult problem than the untreated case.

Dr. Bronfin (Closing): In diagnosis of pulmonary carcinoma, we were not fortunate in getting any result from sputum examination. While we imbedded the sputum in paraffin, studied it in our own laboratory and also the University laboratory, it did not prove a diagnostic aid. The trouble with cases except those associated with tuberculosis is that they didn't have an sputum; they had mucoid sputum and consequently it wasn't of very much value. The one case that had an extensive intrapulmonary suppuration likewise had a persistent, spasmodic, non-productive cough because of bronchial obstruction.

The question of the sexes is exceedingly interesting. Haber in 47 cases had only one woman, and he thought the difference between vital capacity of the man and woman deserved further study.

The theory of the gasoline age is very plausible, but then women are driving automobiles nearly as frequently as men and consequently we cannot explain this question that way.

Dyspnea may be an early symptom entirely out of proportion to the amount of involvement, yet the one man who apparently had an upper lobe carcinoma did not become dyspneic until shortly before his arrival in Denver when actual atelectasis had occurred.

I agree with Dr. Darrow that bronchoscopy is a very important procedure in diagnosis; likewise the x-ray. But bronchoscopy has its limitations because very often the tumor is not accessible for biopsy examination.

COOPERATION OF MEDICAL AND DENTAL PRACTITIONERS TO AVOID DANGEROUS SYSTEMIC COMPLICATIONS IN THE EXTRACTION OF TEETH*

JNO. W. SEYBOLD, D.D.S.
DENVER

The extraction of a tooth or of teeth has always been considered of such minor importance by the average dentist that he has given very little thought to the subject. However, when you stop to think of it, practically all malpractice suits against members of the dental profession are based upon post-operative conditions following the extraction of teeth. Indeed, we are forced to recognize the fact that far too frequently this operation is followed by serious and at times fatal systemic complications. Therefore, when one is called upon to extract teeth, he is assuming more and greater responsibility than for any other operation in the practice of dentistry.

The day is past when one can safely risk professional reputation, and possibly the patient's life, by extraction of teeth without a thought as to general physical condition. It is wise to make a habit of closely observing the way a patient walks into the operating room; by so doing, the doctor may judge vitality or lack of it. Note the color of the skin, whether it is cyanotic or anemic; if so, get in touch with the patient's family physician, who will be very glad to advise as to the patient's physical condition. It is just as important to know when not to operate as it is to know when to operate.

In an examination of the mouth, be sure to note the condition of all soft tissues, as well as the teeth, from the lips back to the tonsillar area. When there is a lesion upon the lip associated with adenopathy and it has been present for two weeks or more, be suspicious of syphilis and refer the patient to the family physician for a definite diagnosis. A dirty yellowish patch, not particularly painful or surrounded with redness, located on the inside of the cheek, lips, tongue, gums or pharynx, may be a highly infectious

mucous patch. If the patch is irregular in outline and covered with a whitish grey membrane which is easily rubbed off with cotton and the underlying surface bleeds freely and is sensitive to touch, it is quite probable that it is a Vincent's infection. In either case no extraction should be done until the infection is cleared up. It is good practice to request medical consultation. If you see a tongue that is smooth, glossy and sore and the patient appears anemic, think of pernicious anemia. Do not operate until you know positively. When you note congealed blood about the necks of the teeth, the gums white, spongy and swollen, think of leukemia. In either of the above cases it is absolutely necessary that you get competent medical advice. These patients are in desperate need of medical help, not extraction. Patients who admit a tendency to bleed, or have been so warned by a physician, should have a blood clotting time taken. They should be put on treatment if clotting time is over four minutes. When the physician has reduced the clotting time, extract not more than one or two teeth at the first operation. If possible, avoid extraction of teeth during the menstrual period, for women at this time often have severe postoperative hemorrhage. If the patient is pregnant, her physician's permission should be obtained before any extraction is performed. The work must be painless, for pain at this time might induce labor.

When the gingival tissues are infected around a lower third molar, the submaxillary glands enlarged and sensitive to palpation, it is good practice to treat and reduce this before extraction of the tooth. Extraction of the tooth during the acute stage of infection is quite likely to result in a cellulitis, osteomyelitis, Ludwig's angina, abscess of the cheek, or peritonsillar abscess. No extraction of teeth should be done when there exists swelling in the following venous areas: The pterygoid plexus, facial, angu-

*Presented before the Pueblo Dental Society April 18th, 1934. In view of the frequency of necessary cooperation between the professions, this paper is of definite value to physicians.

lar, and ophthalmic veins. These veins have no valves; therefore infection can be and occasionally is transmitted to the cavernous sinus causing thrombosis, meningitis, and death.

If a patient should have a breath which has a peculiar fruity odor, it should cause you to suspect a diabetic condition. Do not do any extraction until you confer with the physician, as the patient might be thrown into diabetic coma. I find that these patients do better under a skillfully administered gas oxygen anesthesia. When tortuous temporal veins stand out prominently, think of nephritis or high blood pressure. Here again, you must seek the family doctor's advice in order to judge how much to do at any one time. If an anemic appearing patient, whose radiographs show a mass of infection, should consult you, demand a blood picture and count. It may not be safe at first to extract more than two or three teeth at any one time. Select the least infected at first in order to sensitize the patient. Wait ten days to two weeks before doing any further extraction. This is to allow sufficient time for the formation of antibodies. Otherwise the patient's blood stream might be overwhelmed with infection, with serious consequences.

Status lymphaticus is found in children and adults as well. These patients die following the most trivial of operative procedures, such as the injection of a few drops of anesthetic or after the first few breaths of a general anesthetic. Children who have a history of apneic attacks with cyanosis and convulsions are particularly dangerous. Men who have a very fair complexion, skin extremely smooth, practically no beard, small waist and a tendency toward effeminacy are bad risks. Women who are extremely thin, with a scantiness of hair, or are childish and obese, are of questionable stability.

By calling your attention to these high lights in general symptomatology and diagnosis, I may influence you to give more time and thought to the responsibilities of dental surgery. By being forewarned and forearmed, our postoperative difficulties will be minimized.

EARLY DIAGNOSIS

MODERN TRENDS IN THE DIAGNOSIS AND TREATMENT OF EARLY SYPHILIS

HARRY L. FRIEDMAN, M.D.
DENVER

By early syphilis is meant, roughly, the first two or three years of the disease—in other words, inoculation, primary incubation period, chancre, secondary incubation period, and secondary syphilis. The term early syphilis must be stressed for two reasons: First, the question of infectiousness. Second, the opportunity of a "cure" as compared with late syphilis.

In the early stage the patient is very infectious and a menace to society. This is not so in late syphilis.¹ It is during this period that the specific organisms are disseminated through the system and unless destroyed while accessible to lethal remedies, they may produce inaccessible foci in the cerebrospinal system, the cardiovascular system, and various viscera which may subsequently give rise to the serious lesions of late syphilis. Even in the early stage, curability depends on how early the disease is being treated. The proportion of cures when treatment is begun in the seronegative primary stage, for instance, is 71.4 per cent as compared with 53.4 per cent if begun in the seropositive stage.²

It is in early syphilis, therefore, that one has the best opportunity to effect a cure and to prevent disastrous late results such as paresis, tabes, aneurysm and other well-known conditions. Syphilis must be considered a systemic infection even after as short a time as twenty-four hours after inoculation. When inoculation takes place as usual, in the skin or mucous membranes, the spirochetes remain in situ for a few hours and then disseminate throughout the system by way of the lymphatics and blood and may reach any or all organs and tissues of the body. Local prophylactic measures, unless carried out immediately after inocula-

tion can, therefore, be seen to be practically useless.

After the primary incubation period which lasts about twenty-one days, the chancre appears. If it is typical, it appears as a hard, indurated, indolent, flat, with a slightly ulcerated surface, and is easily differentiated from other conditions. It is the atypical lesions that may give some trouble in diagnosis. The lesion may be so insignificant that its specificity may not even occur to the examiner. On the other hand, and probably because of a mixed infection with other venereal or banal organisms, the lesion may consist of a large ulcer with little or no induration and accompanied by a large, soft and painful lymph node. The diagnosis at this stage must be by the dark field. The organisms must be differentiated from other spirochetes. This is especially important if the lesion appears on the lips or other parts of the oral mucosa. If that is not possible, often because of local medication, a wet saline application for twenty-four hours is often an aid in demonstrating the spirochetes. Sometimes a gland puncture must be done in order to demonstrate the organisms. The Wassermann at this stage is usually negative and unless the dark field is positive, treatment should be withheld until the Wassermann becomes fully positive. This usually occurs about five or six weeks after the initial infection, i. e., about two to three weeks after the appearance of the chancre, and about one week before the appearance of the secondary eruption³.

This is the second incubation period, i. e., from the appearance of the chancre to the appearance of the secondary eruption. There may be general symptoms which herald in the secondary period, such as malaise, fatigue, headaches, sore throat, iritis, anemia, general adenitis, a positive blood serology, an eruption or a combination of these. The exanthem is usually characteristic. If occurring very early, from three to six weeks after the appearance of the chancre, it usually consists of a generalized macular exanthem, chiefly seen over the back, flexor surfaces, palms and soles, and often mucous patches

and constitutional symptoms above mentioned.

Papular, vesicular and pustular eruptions, mottled alopecia and syphilitic leucoderma usually represent a later period than is indicated by the very early macular exanthem. Squamous and discoid eruptions represent a still later stage. At this stage the Wassermann is unequivocally four plus, and unless the laboratory reports such results or unless the spirochetes can be demonstrated from a secondary lesion, the examiner should think twice before making a diagnosis of syphilis and instituting therapy for lues⁴.

After an indisputable diagnosis has been made, treatment should at once be instituted. Here, hardly, any two syphilologists will agree as to details. They all, however, agree as to fundamental principles. Treatment, while it must be adequate, yet must of course not kill the patient. It must be intelligently, judiciously and systematically administered. Drugs must be selected and dosage adequate. It must be given in systematic courses. As to rest periods between courses, I shall not speak, because it is still a much debatable question. Some excellent syphilographers of Stoke's school believe in the continuous treatment, while other equally excellent syphilographers, like MacKee, Rosen and Chargin, advocate the intermittent treatment by courses. One must keep in mind the age, sex and health of the patient. Males are given larger doses than females; a child who may have gotten the infection innocently, or a feeble patient who may have gotten his syphilis through a blood transfusion, are obviously poorer risks than robust adults. Space will therefore only permit to discuss in detail the treatment of the average early syphilitics.

These patients usually present themselves with a chancre, positive Wassermann, and secondary eruptions. In order to prevent an Herxheimer reaction, treatment should be begun with either bismuth or mercury. After three or four injections of either bismuth or mercury have been given, salvarsan or neo-salvarsan is begun. Injections of bismuth or mercury and the arsenical may be given in the same week, once a week, but preferably

not on the same day. In the first year three courses of the arsenical and three courses of the heavy metal is given, with rest intervals of from four weeks after the first course to eight weeks after the third course of treatment. A course of the arsenical consists of eight to ten injections. The first injection should be small (about 0.3 gm. of neoarsphenamine; and correspondingly less of the arsphenamine) then slowly increasing to a maximum of 0.6 gm., unless the individual is extraordinarily large, when the maximum may be 0.75 gm. A course of heavy metal consists of twelve to fifteen injections of 0.1 to 0.15 gm. of bismuth or a comparative amount of mercury. At the beginning and end of each course a blood Wassermann should be taken. I doubt, however, whether it is advisable to inform the average patient if his Wassermann is negative. While such information may be very valuable to the physician, yet it might lull the patient into an erroneous belief that he is already cured and does not require any more treatment.

At the end of the first year a spinal fluid Wassermann, and at the same time the spinal fluid globulin, cell count, and Lange's reaction should be done. The second year, the patient should receive two courses of an arsenical and three courses of the heavy metal. The third year, one course of the arsenical and two courses of the heavy metal. In the fourth and fifth year, one course of the heavy metal may be given, but is not so indispensable.

Although after such a procedure of treatment, the patient may be considered as cured, unless he has suffered a relapse or shows an irreversible positive Wassermann or other symptoms of lues, nevertheless he must be observed throughout life. Yearly physical examinations and blood tests, without repetition of the spinal fluid if previously twice negative, is in order⁵. Teleroentgenographic and cardiologic study of the heart and great vessels are recommended at the end of treatment and again after five or six years.

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PUBLIC HEALTH NOTES

EDITOR: J. W. AMESSE, M.D.

Public health is founded upon scientific discoveries which are comparatively recent. There is an inevitable cultural lag between the acquisition of knowledge and its application to the community; and, although the desire for life and health is a basic human emotion, the absence of disease, the prevention of an epidemic, the saving of life generally are rated as negative accomplishments. They are not dramatized in the public consciousness.

Public health has not been a major issue of our Government in the past. At the present time, when all human issues are coming to the fore, economic pressure—the necessity of providing a world fit to live in—has continued to shunt aside from public consciousness the present needless sacrifice of human life and efficiency by our inadequate use of scientific medicine. Current measures to restore minimum standards of living, however, are doing more to preserve the mental and physical health of the nation than a frontal attack on disease alone.

The distribution of present health and medical expenditures is distinctly inequitable, only 3 per cent of the total being made for preventive services, public and private. Out of a total per capita expenditure each year of \$30 for all medical care, only \$1 is spent for prevention. Quacks, nostrums, and patent medicines collect too large a part of the remainder.—Thomas Parron, Jr., M.D., New York State Commissioner of Health. "U. S. Public Health Reports," April 13, 1934.

Prevent Vacation Typhoid

The phenomenal decline in the death rate from typhoid fever since the early years of the present century has tended to create a

false sense of security from the disease. While there have been far fewer deaths from typhoid fever in recent years, there has been little or no improvement in the case-fatality rate of the disease. Its victims are just as sick, and the same proportion of them die as formerly. The decrease in mortality has been due to the decrease in the number of cases of the disease, and it is in further reduction of the cases that we must seek still further improvement in the typhoid fever death rate.

Every precaution should, of course, be taken to avoid infection. While on vacation, water should be drunk only from sources known to be well chlorinated or free from contamination. If there is any doubt about its sanitary quality, water for drinking purposes should be boiled before use. Exposure to the air, and cooling, will restore much of its palatability.

Health officers, and physicians who have the welfare of their clients at heart, will recommend that persons planning summer vacations in the country, where exposure to one or more of these sources of typhoid infection is possible, start a course of protective inoculations immediately in order that they may go on their holidays fully protected against an unnecessary and dangerous disease.—From "Statistical Bulletin," Metropolitan Life Insurance Co., April, 1934.

The Hazardous First Month of Life

The infant mortality rate has improved greatly in the large cities of the United States as well as in the country as a whole; but most of the progress in these cities has been accomplished in the last eleven months of the first year of life and little in the first month. To accomplish similar improvement in the first month of life requires more concentration on the care of women in pregnancy and at confinement; for it is to more adequate prenatal care that we must look for whatever savings are to be accomplished in reducing deaths from premature birth and congenital debility; and it is to more skillful obstetrical service that we must look for any further reduction of birth injuries.—"Statistical Bulletin" of Metropolitan Life Insurance Company, March, 1934.

Chronic Rheumatism

It is believed that a greater number have rheumatism today than in previous generations. This assumption is based on the increasing age of the population. Two generations ago the average age of all men, women, and children at time of death was thirty-one years. At the present time it is fifty-four. With more individuals arriving at the age where rheumatism is the most prevalent, the assumption of increasing number of cases seems warranted.—From "Public Health Nursing," May, 1934.

About Children's Sleeping Habits

Warm milk at bedtime induces quiet sleep in children; other beverages have no consistent effect. Large amounts of food at bedtime result in marked restlessness. Baths seem to have no constant effect. Children have definite sleep patterns; they are quieter in cold weather than in hot.—From Giddings, G., Normal Sleep Pattern for Children, J.A.M.A.

Does the Modern Pace Kill?

If death rates in circulatory and renal conditions are studied as a whole, increases after the fifth decade are slight and have mounted little since 1910. Rates for infectious diseases have fallen in every age group. If circulatory and infectious rates are added, the combined death rate tends to attain equilibrium. The theory that "stress and strain" accounts for present day cardiac death rates is not supported, for the rise in circulatory diseases depends on the fall in the infectious diseases, not in early life, as often assumed, but in the very decades in which circulatory increase occurs.—Cohn, A. E., and Lingg, C., Heart Disease from the Point of View of the Public Health. American Heart Journal, Feb., 1934.

Death in War and Peace

Dr. A. Hieronymus, city health officer in Oakland, makes interesting comments relative to the number of deaths that have occurred in wars since 500 B. C., as compared with deaths from plague. He makes a similar comparison between deaths in Amer-

ican wars, as compared with deaths by automobiles since 1915. His statement, published in the December issue of the Oakland Health Department Bulletin, reads as follows:

"Since 500 B. C., there have been 902 wars. The number of men killed in battle during those 2433 years does not equal those killed by the rat. Yes, the old warehouse sewer rat. He has been the carrier of plague and responsible for the death of more people than all the wars. Oakland, on account of its shipping interests and its proximity to the Orient, is always a potential plague spot.

"Speaking of wars and casualties, did you know that if you sum up the number of those killed in American wars, from the French and Indian down through the World War, the total would not equal the fatalities by automobiles since 1915? Just think that over and remember that more die from tuberculosis than are killed by automobiles. All of these conditions are preventable. It costs thirty times as much to take care of the injured and diseased as it does to prevent them. Some day we will learn to use our 'noodle.' It is a poor policy to cut the budget of health and safety agencies."—Diplomate, April, 1934.

Since the outbreak of amebic dysentery in Chicago last summer there have been more than 400 cases reported in the United States, and more than thirty deaths, definitely diagnosed. It is not yet known whether serious consequences will follow the wide dissemination of the disease brought about by the occurrence of cases among Chicago visitors from all parts of the country.

LIBRARY NOTES

"A Library Is a Summons to Scholarship"

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PHILADELPHIA ACADEMY OF SURGERY

The Samuel D. Gross Prize, \$1,500

Essays Will Be Received in Competition for the Prize Until January 1, 1935

The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22nd St., Philadelphia," on or before January 1, 1935.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

WILLIAM J. TAYLOR, M.D.,

EDWARD B. HODGE, M.D.,

JOHN H. GIBBON, M.D.,

Trustees.

Philadelphia, April 15, 1934.

AMERICAN ASSOCIATION FOR THE STUDY OF GOITER

Headquarters—Wade Park Manor
Cleveland, Ohio, June 7, 8, 9, 1934

This Association will meet in Cleveland, Ohio, June 7, 8 and 9—just preceding the meeting of the American Medical Association.

The tentative program includes the names of well-known men in the United States and Canada interested in the subject of goiter.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

Vacations

WE have all heard of the mail carrier who went for a nice long walk on his vacation. While mail carriers as a class have always been the butt of the old wheeze, professional men are likely to do the corresponding thing. For their vacations, doctors go to the A.M.A. meeting, clinics, their state society annual session, lawyers to their bar association, architects to their institutes. It is only natural and right that men do these things. Doctors may have been "graduated" many years before, but they must never stop studying.

However, more and more, professional organizations, our own State Medical Society among them, have come to the realization that another old wheeze applies, that too much work makes Jack a dull boy—that medical meetings consisting entirely of heavy scientific papers dull the intellect and too often send physicians back home from their "vacation" mentally wearied, scientifically surfeited. Variety has been lacking. Entertainment has been almost non-existent.

Colorado will correct that this year. There will be no diminution of scientific meat at the Sixty-fourth Annual Session in Colorado Springs. On the contrary, there will be more scientific papers than usual. But they will be shorter, terser, many of them organized into seminars or symposia. The correction comes in the fact that with the scientific meat will be served other dishes. New kinds of exhibits, both scientific and technical. Shall we call them salads? Operative clinics. Dry clinics. Moving pictures galore. A new banquet idea. And—perhaps it should be called the champagne of this set-up—an old-fashioned smoker in modern dress.

In other words, our coming State Meeting will be a remarkably instructive session, but it will also be a real vacation for our members, our guests, and our ladies. The plan will make it more fraternal than such meetings have been for years.

Doctors need vacations—they deserve them especially these last few years. Take them. Go fishing this summer. Play golf, and take a trip. Go to Cleveland this month with the A.M.A. if you can. BUT—

Plan for the vacation par excellence: four days if possible, surely three, at Colorado Springs next September. Bring the women folk, for there is just as much afoot for them as for the men. Remember the dates: Wednesday evening to Satur-

day evening, September 19 to 22, 1934. Headquarters at the Antlers Hotel, with 90 per cent of the convention activities right under that one big roof. The cost? Surprisingly low. The Colorado Springs hotel have given your Committee the lowest rates that the N.R.A. code will permit. Watch for more details next month.

MEDICAL SOCIETIES

ADAMS COUNTY

The Adams County Medical Society held its regular meeting May 18, at the office of Doctors Hotchkiss and Peer in Brighton. Numerous difficulties arising from the present status of the FERA were discussed freely and a committee was appointed to draw up a resolution requesting the County Relief Committee to modify some of its policies to the end that no worthy medical case suffer from lack of proper attention.

J. C. STUCKI,
Secretary.

BOULDER COUNTY

An hour with moving pictures from Mead, Johnson & Company was the principal feature of the regular meeting of the Boulder County Medical Society held May 10 at the Boulderado Hotel at Boulder. Dinner preceded the meeting.

MARGARET L. JOHNSON,
Secretary.

CLEAR CREEK VALLEY

Doctor J. S. Bouslog and Mr. Harvey T. Sethman of Denver, and Jefferson County FERA officials met with members of the Clear Creek Valley Medical Society May 8, at the Cody Hotel in Golden. Cooperative plans for the administration of medical relief were agreed upon between the Society and the relief officers.

L. R. SUNDERLAND,
Secretary.

CROWLEY COUNTY

Doctors G. P. Lingenfelter and G. M. Blickensderfer of Denver were guest speakers at the regular meeting of the Crowley County Medical Society held May 9 in Doctor Desmond's office at Ordway. Doctor Lingenfelter conducted a skin clinic and followed by showing slides illustrating the "Diagnosis of the Commoner Skin Diseases." Doctor Blickensderfer read an interesting paper on the "Present Status of Serum Therapy in Pediatrics." Both papers were discussed generally by all members present. Mr. Harvey T. Sethman, Executive Secretary, was also a guest at this meeting, as were also Doctors R. S. Johnston and C. E. Morse, president and secretary of the Otero County Medical Society.

J. A. HIPP,
Secretary.

DENVER COUNTY

Members of the Weld County Medical Society presented the scientific program for the meeting of the Denver County Medical Society held May 15, at the Auditorium of the Capitol Life Building. At the business session Dr. Julian Maier explained plans made by his Committee for members to become associated with the Retail Credit Men's Association. Doctor B. B. Jaffa announced the removal of quarantine on the three minor contagious diseases—measles, mumps and chicken pox and asked the cooperation of members of the Society in this progressive move. Dr. C. F. Kemp-er reported for his Committee on moving, stating that the Committee recommended, after its investigation, that the Society remain in the present location and continue to meet in the Auditorium of the Capitol Life Building. Announcement was made by the Secretary of the Society of the Honorary Dinner for all members having completed fifty years of practice. Doctor N. A. Madler, President-elect of the Colorado State Medical Society, gave an excellent talk on "Present Day Economics." He introduced in turn the following speakers: Doctor H. W. Averill, who spoke on "The Common Cold;" Doctor W. F. Spaulding, who presented a case report—"Hemolytic Icterus Anemia;" Doctor C. A. Ringle, who discussed "Otitis Media" and Doctor Charles B. Dyde, who talked on "Quixotic Medicine." One hundred and two members of the Society were present at this meeting.

O. S. PHILPOTT,
Secretary.

* * *

FREMONT COUNTY

Doctor Kon Wyatt of Canon City was the principal speaker at the regular meeting of the Fremont County Medical Society held April 23, at Florence. Doctor Wyatt gave an interesting talk on "Hay Fever" with a report of 239 treatments in Fremont County.

A. BEE,
Secretary.

* * *

LARIMER COUNTY

Doctor George B. Kent of Denver was the guest speaker at the regular meeting of the Larimer County Medical Society held May 2, at the Northern Hotel in Fort Collins. Doctor Kent presented a paper on "Surgical Management of Peptic Ulcer."

L. D. DICKEY,
Secretary.

* * *

MESA COUNTY

Doctors R. B. Porter of Glenwood Springs and James S. Orr of Fruita were the speakers at the regular meeting of the Mesa County Medical Society held May 15 at the La Court Hotel in Grand Junction. Doctor Porter gave an interesting talk on "Thyroid Disturbances" and Doctor Orr on "Mechanical Conditions in the Abdomen Requiring Operative Interference." The next meeting of the Mesa County Society will be held in September.

FRANK J. McDONOUGH,
Secretary.

* * *

MORGAN COUNTY

Doctor C. F. Eakins, newly elected president of the Morgan County Medical Society, entertained the Society at a banquet at the Carroll Hotel in Brush on April 30. The Society had as

guests Doctor N. A. Madler, president-elect of the Colorado State Medical Society, Doctor John W. Amesse of Denver, and Mr. Harvey T. Sethman, Executive Secretary. Doctor Madler and Mr. Sethman gave short talks on organization problems and medical economics. Doctor Amesse gave the principal paper of the evening on "Convulsive Disorders of Infancy." Several members of the adjoining Washington-Yuma Counties Society attended the meeting.

PAUL E. WOODWARD,
Secretary.

* * *

WELD COUNTY

A concert team composed of Doctors Samuel B. Potter, William C. Black and W. W. Wasson presented a symposium on "Cancer of the Breast" at the meeting of the Weld County Medical Society held May 7 at Greeley. Mr. Harvey T. Sethman, Executive Secretary, spoke on the present status of the FERA.

J. A. WEAVER, JR.,
Secretary.

Obituary

Arlington C. Holland

Organized medicine suffers great loss. The sudden death of Dr. Arlington C. Holland, April 28, 1934, brought keen regret to his many friends in the medical profession of Colorado. Dr. Holland was born in Ohio and was an alumnus of Ohio Wesleyan University, graduating in medicine at Starling Medical College, now the Medical Department of the Ohio State University at Columbus, in 1896. He was prominently identified with the profession in Ohio until he came to Colorado Springs in 1915.

At the time of his death he was chief of the staff of Beth-Israel Hospital and he has been highly valued as a loyal and active worker both in the State and local Medical Society. His universal recognition of the social problems of the medical profession and his unselfish devotion to the support of their organized efforts, were outstanding features of his professional life.

Colorado Springs has always been a distinctive source of such commendable spirit and he fitted well into the temperament of his distinguished associates.

His passing is a loss of no small moment to all of us and his memory a stimulus to loyalty.
W. W. K.

Walter Scott Johnston

After thirty years of faithful practice in Pueblo, Dr. W. S. Johnston succumbed to a heart attack on May 15.

Dr. Johnston had come to Pueblo in 1904 and served internship in St. Mary's Hospital. He had been graduated from Wooster University and the University of Cincinnati. He was prominent in the Park Hill Presbyterian Church and in Masonic circles.

The Pueblo County Medical Society has suffered the loss of a valuable member. Dr. Johnston is survived by his widow and a daughter, Ruth; a son, Walter Scott, Jr., is a medical student in Denver. He leaves also two sisters, Henrietta and Grace, and three brothers, George M., Pliny A., and John B.

Grant S. Peck

Dr. Grant S. Peck, for forty-two years prominent as an eye, ear, nose, and throat specialist in Denver, died at the Mayo Clinic on April 21. Mrs. Peck was at his bedside as he expired. An operation had been performed several days before in a vain attempt to forestall the inevitable termination.

His education had been obtained at the University of Michigan and his internship at the University Hospital in Ann Arbor.

Dr. Peck had been prominent in activities of the Denver Athletic Club and Masonic organizations. For a number of years he was associated with Dr. N. G. Burnham.

He is survived by his wife, five sisters, Mrs. Clara Brenner of Jeffersonville, Ind.; Mrs. Linda Smith of South Bend, Ind.; Mrs. C. P. Rough of Los Angeles, Calif., and Mrs. Glenn E. Smith and Miss Mary A. Peck of Buchanan, Mich., and two brothers, Myron S. Peck of Berrien Centre, Mich., and Schuyler S. Peck of Denver.

WOMAN'S AUXILIARY

Keep in mind the State Auxiliary meeting at Colorado Springs in September.

Mrs. Lenore Coover, the widow of the late Dr. David Coover, passed away Monday, May 7, 1934, at Denver.

Here are a few more highlights about the annual dinner dance of the Denver County Auxiliary, which was held at the Lakewood Country Club, April 21. Brief mention was made of the affair in our last issue. It was a beautiful evening and some ninety were present. Dinner was served by the club at seven o'clock. The tables were most attractive with long low baskets filled with sweet peas and spring flowers.

Dr. and Mrs. W. W. King were the guests of honor. Dr. King, as president of the Denver County Medical Society, gave a greeting and a speech of appreciation of the work of the members of the Auxiliary are doing and are attempting to do.

Mrs. John A. McCaw, president of the Denver County Auxiliary, presided. Others at the head table were Dr. and Mrs. G. P. Lingenfelter, Dr. and Mrs. T. Mitchell Burns, Dr. and Mrs. H. R. McKeen, and Mr. and Mrs. Harvey Sethman.

The committee on arrangements consisted of Mrs. Lorenz Frank, chairman; Mrs. T. Mitchell Burns, Mrs. Byron Dumm, Mrs. H. J. Corper and Mrs. M. J. Krohn.

The Denver County Auxiliary, at their Annual President's Day, entertained some forty presidents of other clubs on March 19. Dr. Arthur Stahl, prominent pathologist of Denver, gave an interesting and instructive talk on "Immunization of Children."

At the April meeting of Denver County Auxiliary, Miss Marjorie Hornbein played two beautiful piano solos. Mrs. Horace Bennett gave a talk on "Cultural New York," which was greatly enjoyed.

One hundred two dollars was voted by the Auxiliary to "The Physician's Benevolent Fund."

Mrs. G. P. Lingenfelter entertained twenty-one members of the State Board of Managers of the Woman's Auxiliary to the Colorado State Medical Society, at a luncheon in her home, 300 Marion Street, on April 30.

The following counties were represented: Pueblo, Weld, Larimer, Boulder and Denver.

Plans were made for the annual meeting, to be held in September in Colorado Springs.

The Twelfth Annual Meeting of the Auxiliary to the American Medical Association will be held in Cleveland, Ohio, from June 11 to June 16.

The Carter Hotel, in the center of everything in Cleveland, has been selected for our headquarters, and all of the Auxiliary activities will be taken care of under the Carter roof.

The Carter quotes:

Single room with shower, \$2.50, \$3.00, \$3.50.

Single room with tub bath, \$3.00, \$3.50.

Double room with shower, \$4.00 and up.

Double room with tub bath, \$4.50 and up.

Twin bed room with shower, \$5.00.

Twin bed room with tub bath, \$5.50 and up, and please make your own reservations as early as possible.

The Woman's Auxiliary to The Denver County Medical Society closed a year of philanthropic and social activities with an attractive luncheon, May 21, at the Denver Country Club. Mrs. George P. Lingenfelter was chairman of arrangements. The long tables, seating some eighty guests, were artistically decorated with white and orchid spring flowers. In the absence of the president, Mrs. John A. McCaw, the vice president, Mrs. Claud Cooper, presided.

Reports of officers and committee chairmen were read. The following officers were elected:

Mrs. Arnold Minnig, president; Mrs. Robert Maul, first vice president; Mrs. Virgil Sells, second vice president; Mrs. Merrill Jobe, treasurer; Mrs. Carl McLauthlin, secretary; Mrs. George Gillen, auditor; Mrs. George Miel, parliamentarian.

A gavel was presented Mrs. Minnig by the retiring president. Mrs. McCaw was given a rising vote of thanks, expressing appreciation of her untiring efforts in making this an exceptionally pleasant and successful year.

Those attending were Mesdames John V. Amble, John Amesse, R. W. Andt, T. E. Peyer, Harry Baum, W. E. Blanchard, G. M. Blickensderfer, A. E. Bonesteel, Lawrence Brown, Ward Burdick, T. M. Burns, George K. Cotton, F. R. Coffman, Leonard Crosby, Claud Cooper, Clyde Cooper, A. J. Chisholm, H. J. Corper, P. J. Connor, Ralph Danielson, John B. Davis, Byron I. Dumm, Lorenz Frank, H. L. Fowler, O. S. Fowler, Harry S. Finney, G. M. Frumess, H. J. Freeland, Franklin P. Gengenbach, Harry Gauss, Ray M. Gottsfeld, George Gillen, Lawrence Green, Daniel R. Higbee, J. N. Hall, I. E. Hix, J. E. Hutchison, Merrill C. Jobe, J. A. Jaeger, G. Jelstrup, C. F. Kemper, W. W. King, George Kent, E. H. Krueger, M. J. Krohn, G. P. Lingenfelter, C. Lincoln, Tracy Love, O. S. Levin, D. W. Macomber, Arnold Minnig, R. L. Murphy, R. F. Maul, C. W. Metz, A. W. Metcalf, George Moleen, C. H. Morian, G. W. Miel, J. H. McKay, John A. McCaw, H. R. McKeen, C. A. McLauthlin, W. A. Ohmart, G. K. Olmstead, D. H. O'Rourke, J. F. Prinzing, R. B. Perry, W. C. Porter, George B. Packard, Sr., R. G. Smith, Virgil Sells, J. A. Schoonover, F. B. Stephenson, W. A. Spangelberger, W. W. Wasson, W. W. Williams, L. C. Wollenweber, P. W. Whiteley, W. Bernard Yegge, Miss Harriette Smith.

COLORADO STATE MEDICAL SOCIETY

Officers, 1933-1934

President: Gerald B. Webb, Colorado Springs.

President-elect: N. A. Madler, Greeley.

Vice Presidents: First, Frank E. Rogers, Denver; Second, A. G. Taylor, Grand Junction; Third, C. E. Sidwell, Longmont; Fourth, Ward C. Fenton, Rocky Ford.

Constitutional Secretary: John S. Bouslog, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 537 Republic Building, Denver. Telephone, KEystone 0870.

Delegates to American Medical Association: Senior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs.

Councillors:	Term Expires
District No. 1	F. W. Lockwood, Fort Morgan.....1936
District No. 2	Ella A. Mead, Greeley.....1936
District No. 3	George P. Lingenfelter, Denver.....1936
District No. 4	C. T. Knuckey, Lamar.....1935
District No. 5	George D. Andrews, Walsenburg.....1935
District No. 6	C. Rex Fuller, Salida.....1935
District No. 7	A. L. Burnett, Durango.....1934
District No. 8	Lee Best, Delta.....1934
District No. 9	W. W. Crook, Glenwood Springs, Chairman.....1934

Standing Committees, 1933-1934

Credentials: John S. Bouslog, Denver, Chairman; Harold T. Low, Pueblo; John A. Sevier, Colorado Springs.

Scientific Work: Kenneth D. A. Allen, Denver, Chairman; Burgett Woodcock, Greeley; G. Burton Gilbert, Colorado Springs.

Arrangements: John B. Hartwell, Colorado Springs, Chairman; William A. Campbell, Jr., Colorado Springs; Carl S. Gydesen, Colorado Springs.

Public Policy: Charles O. Giese, Colorado Springs, Chairman; Walter W. King, Denver, Vice Chairman; H. R. McKeen, Denver; Gerrit Heusinkveld, Denver; Harvey W. Snyder, Denver; James J. Waring, Denver; Lanning E. Likes, Lamar; W. W. Harmer, Greeley; Charles H. Platz, Fort Collins; Gerald B. Webb, Colorado Springs, ex-officio; John S. Bouslog, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. S. Bluemel, Denver (1934), Chairman; William H. Crisp, Denver (1935); C. F. Kemper, Denver (1936).

Medical Defense: T. D. Cunningham, Denver (1934), Chairman; Casper F. Hegner, Denver (1935); Frank B. Stephenson, Denver (1936).

Medical Education and Hospitals: J. A. Sevier, Colorado Springs, Chairman; Royal H. Finney, Pueblo; Thad P. Sears, Denver.

Library and Medical Literature: George A. Boyd, Colorado Springs, Chairman; E. D. Downing, Denver; F. W. Kenney, Denver.

Cooperation with Allied Professions: M. O. Shivers, Colorado Springs, Chairman; H. S. Finney, Denver; John R. Evans, Denver.

Medical Economics: Philip Hillkowitz, Denver, Chairman; Claude E. Cooper, Denver; F. Julian Maier, Denver.

Necrology: George M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; C. W. Streamer, Pueblo.

Special Committees, 1933-1934

Postgraduate Clinics: C. E. Harris, Woodmen, Chairman; Maurice H. Rees, Denver; Nolie Mumey, Denver; O. M. Gilbert, Boulder; Fred M. Heller, Pueblo.

Military Affairs: George P. Lingenfelter, Denver, Chairman; John W. Amesse, Denver; Robert M. Fulwider, Fort Lyon; Louis V. Sams, Denver; W. P. McCrossin, Colorado Springs.

Advisory to the School of Medicine: Frank B. Stephenson, Denver, Chairman; John S. Bouslog, Denver; T. D. Cunningham, Denver; C. E. Sidwell, Longmont; Charles O. Giese, Colorado Springs.

Cancer Education: Lyman W. Mason, Denver (1936), Chairman; Charles T. Ryder, Colorado Springs (1936); John B. Hartwell, Colorado Springs (1936); C. W. Maynard, Pueblo (1935); W. W. Wasson, Denver (1935); H. S. Finney, Denver (1935); William H. Halley, Denver (1934); K. D. A. Allen, Denver (1934); W. W. Haggart, Denver (1934).

Nursing Education: Frank E. Rogers, Denver, Chairman; H. A. Black, Pueblo; C. T. Knuckey, Lamar.

Public Health: E. N. Chapman, Colorado Springs, Chairman; John W. Amesse, Denver; Margaret Long, Denver.

Workmen's Compensation Affairs: Peter O. Hanford, Colorado Springs, Chairman; A. S. Cecchini, Denver; J. B. Farley, Pueblo.

Constituent Societies

Meeting Dates; Secretaries

Adams County: Quarterly, date set by president and secretary; secretary, J. C. Stucki, Brighton.

Arapahoe County: Last Monday of each month; secretary, L. S. Anderson, Englewood.

Boulder County: Second Thursday of each month; secretary, Margaret L. Johnson, Boulder.

Chaffee County: First Tuesday of each month; secretary, C. Rex Fuller, Salida.

Clear Creek Valley: Second Tuesday of each quarter; secretary, O. R. Sunderland, Edgewater.

Crowley County: Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County: Last Friday of each month; secretary, Lee Bast, Delta.

Denver County: First and third Tuesday of each month; secretary, O. S. Philpott, Denver.

El Paso County: Second Wednesday of each month; secretary, Carl S. Gydesen, Colorado Springs.

Fremont County: Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County: Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs.

Huerfano County: Third Thursday of each month; secretary, J. R. Fowler, Tioga.

Kit Carson County: Quarterly, first Monday of December, March, June and September; secretary, W. L. McBride, Seibert.

Lake County: First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County: First Wednesday of each month; secretary, L. D. Dickey, Fort Collins.

Las Animas County: First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County: Third Tuesday of each month; secretary, F. J. McDonough, Grand Junction.

Montrose County: First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County: Last Monday of each quarter; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado: Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado: Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County: Second Friday of each month; secretary, C. E. Morse, La Junta.

Prowers County: First Tuesday of each quarter; secretary, Scott A. Gale, Lamar.

Pueblo County: First and Third Tuesday of each month; secretary, J. L. Rosenbloom, Pueblo.

San Juan: Second Saturday, January and alternate months; secretary, O. B. Rensch, Durango.

San Luis Valley: Fifteenth of each month; secretary, James R. Hurley, Alamosa.

Washington and Yuma Counties: First Tuesday of each quarter; secretary, L. D. Buchanan, Wray.

Weld County: First Monday of each month; secretary, J. A. Weaver, Jr., Greeley.

WYOMING SECTION

President, F. L. Beck, Cheyenne

Vice President, J. L. Wicks, Evanston

President-elect, H. L. Harvey, Casper

Secretary, Earl Whedon, Sheridan

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne J. H. Goodnough, Rock Springs F. C. Shafer, Douglas

Medical Defense Committee: Earl Whedon, Sheridan R. H. Sanders, Rock Springs E. L. Jewell, Shoshoni

EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Casper,

July 16 and 17

THE Thirty-first Annual Meeting of the Wyoming State Medical Society will be held at Casper, July 16 and 17. In the next issue of Colorado Medicine will be printed the full program. Attention is called at this time to the central location and the splendid accommodations which Casper has to offer and to urge all members of the Society to realize the importance of this meeting. Last year we had to abandon the Yellowstone Park Meeting because two other states felt that under the economic condition it was not best to meet. These decisions came so late that it was not possible to arrange an entirely new program and we all felt it would not be fair to ask the men from different parts of the United States, who had so kindly offered to come to the Park and address the joint meeting of three states, to come and only have the small audience that Wyoming could supply from her small membership. Speaking of the smallness of our convention we may in all honesty claim the best listeners in all the states. It is a real pleasure for any speaker to address the Wyoming State Medical Society. Nowhere else is there any body of men who give closer attention and who sit in their seats and drink in what the speakers offer. Our men attend the meetings to learn and you do not find them out in the hallways when a speaker is on the platform. Many an outside speaker has remarked to the Editor upon the splendid attention our doctors give at the meetings. Make your plans to meet

the gang at Casper and be sure to bring your wife along, as the ladies enjoy seeing each other just as much as we men do.

E. W.



Come and Meet With Us

WYOMING extends to the adjoining states an urgent invitation to attend its Annual Meeting at Casper. We have all had a dry, hard spring. Things look bad for our stockmen and ranchers. Our hills are brown and we feel our utter helplessness except for rain to save the conditions we all face. Not alone in Wyoming, but all over the country and indeed the world. But come what may we have no excuse as doctors to lay down and quit. We need each other's council, help, and companionship. Over the imaginary lines on the four sides of Wyoming there live some of the best doctors in the United States. We need them and welcome them to our meeting at Casper.

If you are planning for a short trip into the mountains come by way of Casper and there enjoy our meeting and in turn help us. Our mountains are open to you by good roads and there in the cool fine air you can rest and forget the troubles of a busy doctor's life. All the doctors bid you come. We want to see our friends from Colorado, Nebraska, Utah, Idaho, and Montana. The Casper doctors will do their best to entertain you and make your visit one to be remembered. Come and see us.

E. W.

Pretty Clean

ATTENTION was called by the recent Public Health Weekly Bulletin to the extent of narcotic drug addiction in the various states. Sometimes editorially we have had to say some things not too complimentary about ourselves. After carefully studying the Government report we feel very proud of Wyoming's record as is there disclosed. The record shows that for the year 1933 no doctor in Wyoming was arrested for the violation of the narcotic laws.

We are proud of the fact that Wyoming is not the home of an unfortunate group of doctors who are slaves to the Goddess of Opium. Nowhere else in the United States is there a finer cleaner group of medical men who are so free from the dreadful habit of drug addiction. They do not use narcotics themselves and do not prescribe them in such quantities as to make slaves of their patients. We are proud of the standing of our Wyoming doctors.

E. W.

AMERICAN MEDICAL GOLFERS MEET JUNE 11, CLEVELAND

The twentieth annual tournament of the American Medical Golfing Association will be held at the Mayfield Country Club, Cleveland, Monday, June 11. Thirty-six holes and eighteen hole matches will be played for the fifty prizes offered in eight events. This includes the championship event, which has as its major prize the famous Will Walter Trophy, awarded since 1923 for low gross thirty-six holes. This trophy, designed by Edgar Millar and executed by the Cellini Shop, Evanston, Ill., symbolizes the evolution of medicine.

Trophy Depicts History of Medicine

The first handle depicts the age of primitive ignorance, with shaman witch doctor, spells and the invocation of nature gods to cure ailing mankind, from antiquity to 500 B. C. The second handle shows the age of Greek thinkers, bearing the serpents symbolic of Aesculapius, god of medicine—an age of thought and research, from 500 B. C. to 640 A. D. The third handle represents the age of medieval superstition from 640 A. D. to 1500 A. D., with an astrologer, the physician common to the dark ages. The fire of incantation rises behind the figure as he traces a cabalistic sign in the air. The fourth handle depicts the age of modern medical research, from the Renaissance to modern time, with increasing light spreading from a figure symbolic of an enlarging vision.

Winners since the cup was placed in competition have been Drs. E. A. Seaforth, San Francisco, 1923; George McKee, Pittsburgh, 1924; Homer Nicoll, Chicago, 1925; S. M. Hill, Dallas, Texas, 1926; George McKee in 1927; Walter Shelden, Rochester, Minn., 1928; John Loudon, Yakima,

Wash., 1929 and 1930; George McKee, 1931; S. M. Hill, 1932, and Mark Bach, Milwaukee, 1933.

Other Events—Fifty Prizes

Other events and trophies include the association handicap, 36 holes net, with the Detroit trophy; the choice score championship, 36 holes gross, with the St. Louis trophy; the 18 hole gross championship, with the Golden State trophy; the 18 hole handicap championship, with the Ben Thomas trophy; the maturity event, with the Minneapolis trophy; the "oldguard" championship, with the Wendell Phillips trophy; the kickers handicap, with the Wisconsin trophy.

A. M. G. A. Has 1,100 Members

Dr. Homer Nicoll is president; Drs. Charles Lukens, Toledo, and John W. Powers, Milwaukee, are vice presidents of the American Medical Golfing Association, which has a total membership of approximately 1,100, representing every state in the Union. All male Fellows of the American Medical Association are eligible to membership. A cordial invitation is extended to every medical golfer to write the executive secretary, Bill Burns, 4421 Woodward Avenue, Detroit, for an application blank. An enjoyable day on June 11 will be the result.

MEDICAL STUDY TRIP TO HUNGARY

At the invitation of the Hungarian Medical Postgraduate Committee of Budapest, Professor Emil de Grosz, President, and of the Association "Budapest Town of Medicinal Springs," Archduke Dr. Joseph Francis, President, a medical study trip to Hungary is being organized. The plans provide for a fortnight visit to Hungary during which there will be postgraduate lectures and demonstrations in English at the principal university clinics and at the municipal thermal baths and springs. Reduced railroad fares and hotel rates are granted by the Hungarian government. The party will sail from New York on August 18, 1934, visiting Munich and Oberammergau en route. The return trip may be made, optionally, via Berlin, Paris, or Italy, arriving back in New York on September 30.

American physicians of good standing are invited to join. The American committee of the study trip consists of Harlow Brooks, M.D., Chairman; Charles G. Kerley, M.D.; Jerome M. Lynch, M.D.; Wendell C. Phillips, M.D., and Erwin Torok, M.D. Richard Kovacs, M.D., 1100 Park Avenue, New York, is Secretary.

The Injured Hand

Early assumption of activity is one of the most efficacious methods of restoring motion in suitable cases and it is fortunate that attempts in this direction are so often resisted.

It is often surprising to discover that a workman's hand, which at the time of disability was estimated seemed little more than fibrous unit, has returned to an almost normal state through application of his fingers at work.—F. M. Miller, Chicago, in *International Journal of Medicine and Surgery*, January.

HAS BUSINESS IMPROVED?

The answer to this question is found in the combined showing of 210 leading companies which reveals total net profits of \$98,000,000 for the first quarter of 1934 as compared with \$72,000,000 for the December quarter and a deficit of \$23,000,000 for the first quarter of 1933.

This year about 71% of the 210 companies operated at a profit as against only 40% for the first quarter of 1933. The trend for industrial companies was in the direction of improvement.

The record for the 20 odd industries represented in this tabulation is fairly consistent; except for six baking companies whose profits dropped 0.4% from 1933, every industry showed an improvement. For the March quarter of 1934 the following gains were shown over the same 1933 period: chemicals 130%, household supplies 192%, office equipment 233%, miscellaneous manufacturing companies 239%, food products 50%, drugs and sundries 18%.

The following groups which operated in the red last year show a profit for 1934: mer-

chandising companies 101% improvement, restaurant chains 114%, oils 149%, electric equipment 170%, auto accessory concerns 207%, machinery manufacturers 224%, coal companies 555%, textile and apparel manufacturers 2700%.

Likewise those industries which are still operating at a loss show an improvement, although it is less marked. For example, automobile and steel companies did much better than a year ago, while building material companies cut losses by 71%.

Improvement in earnings is even more marked if the comparisons are taken for the year 1933 as against 1932: 1475 corporations classified in 55 major industrial groups give a net profit for 1933 of \$660,655,000 as compared with a loss of \$97,156,000. The 1933 deficit of 150 Class A Rails was reduced from \$150,634,000 to \$13,801,000.

Business has improved and should continue to do so. The logical conclusion to be drawn is that now is the time for investors to purchase the seasoned securities of established corporations.

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Denver Hospital Council

THE Denver Hospital Council had its regular meeting at Mercy Hospital on Thursday, May 10. The time was taken up with the presentation and discussion of reports of two special committees appointed at the last meeting of the Council—The Committee on Uniform Visiting Hours, and the Committee on Ways and Means of Increasing Hospital Business and Revenue.

The Committee on Uniform Visiting Hours recommended that the following schedule for visiting hours be adopted in all Denver hospitals:

Private Rooms	Maternity Department
10:00—12:00 A. M.	2:00—4:00 P. M.
2:00—4:00 P. M.	7:00—8:30 P. M.
7:00—8:30 P. M.	
Wards	Children's Department
2:00—4:00 P. M.	2:00—4:00 P. M.
7:00—8:30 P. M.	

The report of this committee was accepted and the committee discharged.

The Committee on Ways and Means of Increasing Hospital Business and Revenue made the following recommendations:

1. The establishment of a system whereby the hospitals may obtain uniform information pertaining to the granting of credit and the making of collections. Often a patient will go from one hospital to another leaving an unpaid bill at each institution. If an agency or clearing house were established, from which all the hospitals could at once find out whether a prospective patient had proved to be a poor credit risk at some other hospital, many more "doubtful accounts" might be collected.

2. That the charity hospitals adopt ways and means of assuring themselves that the patients they admit are worthy recipients of their charity services. This would not only

include regularly admitted patients, but also emergency cases.

3. That a further study be made of hospital group insurance.

The report of the committee was approved, and the committee discharged with thanks. New committees will be appointed to further study the definite recommendations made by this committee.



Mid-West Hospital Association Meeting

THE most important event of the month is the Mid-West Hospital Association meeting in Tulsa, Oklahoma. Seven Colorado hospital superintendents will attend. Since the meeting will be held after this column has gone to press, the details of the meeting cannot be given until the next issue.

Next year the Mid-West meeting will be held in Colorado, and it is hoped that every hospital superintendent in the state will co-operate in making it the best meeting the Association has ever held. Colorado has an active hospital association, and is fortunate in having a beautiful geographic location, so that next year's convention should prove a delightful meeting and vacation combined for the members from other states.



Commencements

APRIL and May found the hospitals in the midst of Annual Commencement exercises. Most of the classes this year are smaller in numbers than they have been in previous years.

The State Board of Nurse Examiners held examinations for the recent graduates and others on May 22, 23, and 24.

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However insistent the most stubborn conservative may have been some five or six years ago that we as a nation would not be deflected from the prosperous tenor of our ways, it is extremely unlikely that today even the most stubborn of stubborn conservatives would deny the fact that we have been precipitated willy-nilly out of our comfortable, secure way of life. Change is taking place in every direction. Even science and philosophy are pulling away from their old moorings and a new movement of thought seems on the way. Prominent amongst the shifts in thinking which have already occurred is in that field of thought known as ethics, or the philosophy of conduct.

That passionate search for the truth about things—the search for facts—which has distinguished the efforts of mankind from the middle of the past century to the present, interestingly enough has now led man to perhaps the most earnest and critical inquiry into the value of things that any century has yet beheld. This inquiry has led man to a frank skepticism about all the old ethical standards known and cherished by our forefathers. It is obvious that if the social order now evolving does not see the creation of an entirely new system of ethics, it will at least see such a rearrangement of the old values that the new ethics will bear little resemblance to the old.

The evolution of the new ethics has already progressed to a point where its general trends and the principles upon which in all probability it will be constructed are clearly set forth in current philosophic literature. Judging from this literature it would appear that the new ethics should hold a peculiar interest for those of us who are engaged in the field of health service, for it accords to health one of the most important positions in the hierarchy of human values.

I am drawing rather freely upon Professor

DeWitt Parker's book, "Human Values," for I find Dr. Parker's treatment of the new ethics, especially as related to health, most lucid and complete. It is not my intention to discuss at length either the new or the old ethics; my discussion will consist merely of a brief presentation of the fundamental difference between the two because of the practical bearing this difference has on health and its evaluation.

Throughout all the centuries which have been influenced by the Platonic-Christian tradition, with perhaps the exception of the present one, the authority of the ethical ideal was believed to have its basis either in a supernatural being or in "pure reason." The ethics of these centuries concerned itself primarily, if not exclusively, with so-called "moral" values (morals conceived of in the narrower rather than in the wider sense).

Now the foundation of the ethical ideal in the "new" ethics is believed to be none other than the nature of man himself; the authority for the new ethical ideal is human, rather than supernatural. Also, for the new ethics there is no separate moral interest or value. According to Professor Parker the major values of life may be divided into two classes, namely, values of "real life" and values of the "imagination." Under the former he lists health and comfort, ambition, love, ethical or moral value, value of knowledge, and technological value or the value of efficiency; under the latter, value of play, value of art, and value of religion.

It will be noted that health appears first in the list of values of "real life." This place is accorded to health not because it is the most important of values but because a minimum of health is necessary for the realization of all other values; health lies at the foundation.

Health has come to occupy a position of growing importance in this country; it has almost become a cult. There seems to be two explanations for the public's growing interest in this subject; one relates to our form of industrial-economic organization and our

*Read before the Colorado Hospital Association April 13, 1934.

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philosophy of work, the second, to the phenomenal advance in medical science.

In an industrial democracy such as ours the worker is the recipient of a social respect not accorded to man in any other capacity. The man of leisure is little understood or respected by our people, for as Adams points out in his *March of Democracy*, "by force of circumstance 'work' had early become, as it was to remain, one of the cardinal virtues of America." In an industrial democracy man demands for his own success and advancement a high degree of health; to the worker ill health is disaster. Health in this country, therefore, has become to a large degree the indispensable means to the welfare of the group as well as to the success and advancement of the individual.

Foremost amongst the boons the twentieth century has bestowed on man is the assistance he has received from scientific medicine. Life has become safer and infinitely more gracious as a result. Scientific medicine has also transformed thinking in one direction for it has brought to man the realization that health is a procurable thing.

That conscious reaching out for health, that earnestness displayed in the search for "the way to positive health" which distinguishes the American people may be attributed to the two reasons I have just discussed. It appears that the interest in public health promotion in this country will be neither transitory nor limited; it promises to be permanent and ever-increasing.

Thus far I have suggested how and in what manner it happens that health has come to be considered one of the great normative values of life. I should now like to suggest that it may come to pass that health will not only be thought of as a value, but as a right.

Many centuries ago the principle that human beings had certain essential and inalienable rights simply because they were human beings was borne into the world. The by-products of this principle have up to this time been largely political—Freedom, Equality, Democracy, and the like. It is said that the essence of the new social order which seems now to be evolving will be "social

injustice." We are learning that, notwithstanding all the blood and tears that have been shed to make man politically free, other battles, bloodless though they may possibly be, must yet be waged and won before man is truly free. The next act in that great human drama, "The Evolution of Reason," will center around the securing for man certain social rights. What I should like to suggest is that it is conceivable, even probable, that the new "rights of man" will include the right to enjoy health and to command adequate health service. It is my belief that the shift in the valuation of health that has occurred in the recent past promises in the near future a demand for health service, in terms of both quality and quantity, which will surpass anything yet dreamed of. Some reorganization of health service seems both inevitable and imminent, however disagreeable and repugnant this may be to some of those within the field of health service. A novelty which characterizes the social organization of the more recent centuries is the profession. Whitehead* points out that the professions have in a very real way "saved" and promoted human progress. He suggests that the profession has made the two following noteworthy contributions to society: First, it has safeguarded the public's interest in relation to a specialized activity or service and, second, it has acted as a means of social control because it is able to demonstrate the dangers of extravagant notions.

In contrast to this thought, we have as earnest a thinker as Barker† suggesting that the professions are in no sense unmixed blessings. Barker calls our attention to the fact that one of the deepest social tendencies in history is the movement toward voluntary organization. The merchant guilds, craft guilds, free universities and the like of the middle ages have in the twentieth century become transformed into voluntary organizations based around the unit of occupation. The movement toward voluntary organization has been pronounced in this country and

*Whitehead, A.—"Adventure of Ideas," pages 68-74.

†Barker, Ernest—"National Character," pages 274-278.

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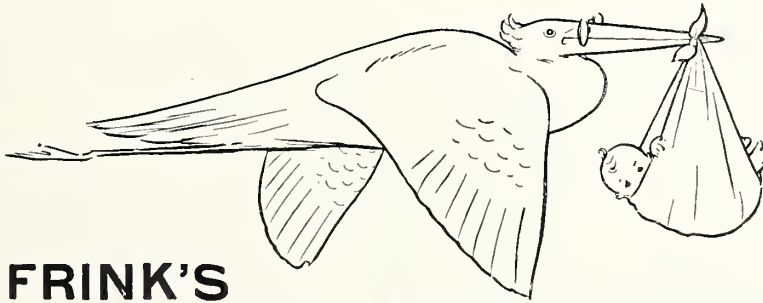
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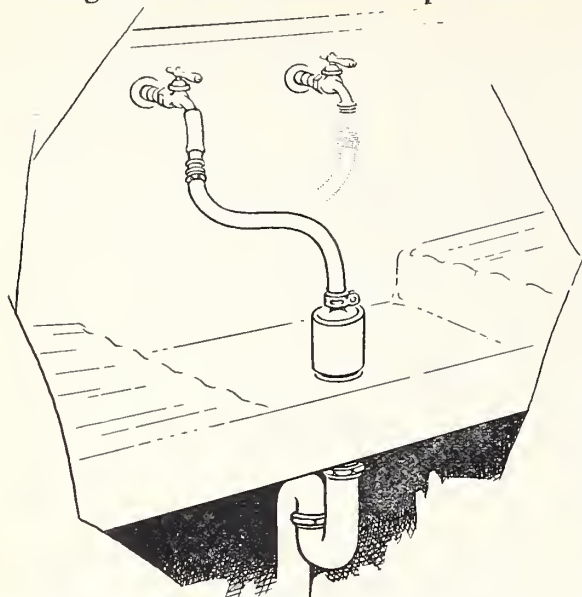
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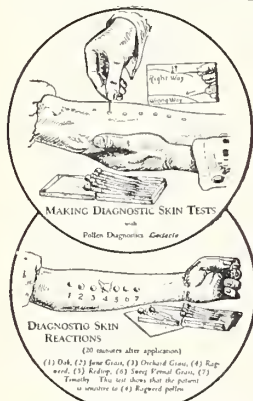
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the various working groups have become self-conscious and articulate relative to their claims and their desires. The clash between group interests and the welfare of society as a whole has become increasingly marked.

The question which now confronts workers in the field of health service is how the special benefits of their particular group may be preserved in the face of this great shift in the valuation of health—a shift which sees the American people realizing more and more that health is not only one of the greatest of human values but a value which may in most instances be enjoyed by them if society is properly organized. Well may we ask ourselves if a philosophy of occupationalism may survive in a world of socialized thinking, if health service will be rendered in this new era under the same conditions which govern the rendering of such service today.

Many centuries ago on the streets of Athens a squat, quaint figure of a man passed the time away by engaging in one conversation after another. This man spoke of himself as a "midwife" for (as he said) he was engaged in the business of assisting in the birth of ideas! Socrates, for it is of him I speak, had a unique way of acquiring and disseminating knowledge—he asked, rather than answered, questions. I shall close this paper by emulating Socrates in this particular regard, hoping to stimulate at least in part the answers to these questions of vital importance:

(1) How is the education of the professional worker of the future to be so arranged that he may be made conscious of social values responsibilities at the same time he is acquiring technical skill?

(2) In the new social order will the preservation of health rest upon a system wherein the amount of health service received is dependent upon the ability of the unaided individual citizen to purchase health service?

(3) How is health service to be arranged that the interest of the health worker shall be stimulated in relation to health conversation to the same degree as is his interest in treatment and cure?

(4) What does the word "cure" really mean—does it mean relief of pressing signs and symptoms or does it mean correction of

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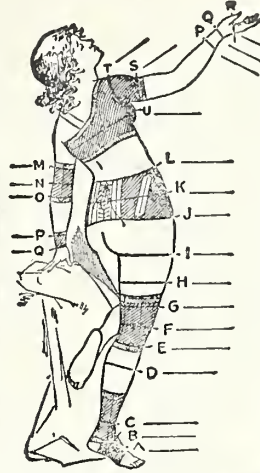
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the underlying conditions giving rise to these symptoms? What special implications does this question hold for nurses?

(5) What is the responsibility of the hospital for the health education of its patients? For the dissemination of health information?

(6) If it is believed that the hospital is and should be a (public) health center, how is this responsibility to be made functional and dynamic?

(7) In light of the shift which is occurring in the valuation of health, what reorganization might be anticipated in relation to the present pattern of nursing education which prepares students for bedside nursing only—i. e., for the field of the curative alone?

(8) Is the present pattern of nursing education the result of rational analysis of the nursing needs of the modern community and a definite effort to meet these needs? If not, of what is it a product?

(9) Is it possible for any school of nursing to serve at one and the same time the following two purposes, namely, (1) the furnishing of nursing service at lowest cost to the hospital sick, and, (2) the preparation of nurses in the most effective manner for the nursing needs of the modern community?

(10) How far is the hospital justified in subordinating the larger social need, namely, the need of the modern community for adequate nursing service, to the smaller social need, namely, the need of the hospital for a cheap nursing service?

(11) If a system is established which will see a new and more equitable distribution of wealth, what may be the future of the private hospital? What special implication does this question hold for nurses?

(13) Why is the preparation of the nurse for community service not considered to be as much the responsibility of the state as is the preparation of other professional workers?

(14) Is the system of nursing education which sees all preparation for the field of public health nursing secured through post-graduate work alone, a product of utility or of sound educational planning? Can the

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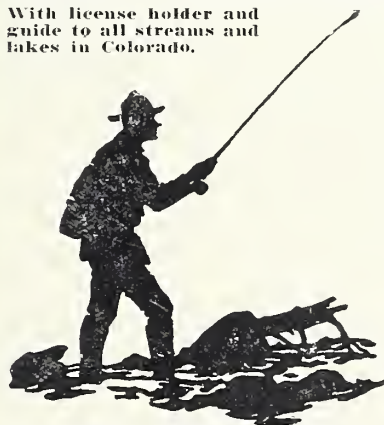
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nurse be best prepared for public health nursing by grafting the technics of public health nursing upon the technics and curative viewpoint acquired by the nurse in a hospital background? What reorganization of the nursing curriculum is implied by these two questions?

(15) Is the system which compels a patient who needs bedside nursing to buy the full-time service of a nurse, economically sound or socially satisfactory? What reorganization of this system is clearly implied?

WHY THE ADMINISTRATIVE DIETITIAN?

RUBY KYSAR*

DENVER

The professional dietitian is a fairly new member of both the hospital and the commercial fields. She is, therefore, being called upon quite frequently to justify her existence. I feel that she is rapidly gaining a secure footing in the professional world. I once heard the profession of dietetics described as one stolen from the two well-known fields of medicine and nursing. In the past years the science of diet in disease has developed so rapidly that it has become a field of its own. The Doctor no longer writes the diets, and the nurse does not have the responsibility of administering the diet and supervising the attractive preparation of the food. That part of dietetics we can now tie to the therapeutic dietitian and put her aside to consider the administrative dietitian, who is a still more recent development.

It has been said that a dietitian hoping to obtain an administrative position of any size should really have, in addition to her dietetics training, courses in bookkeeping, accounting, engineering, materials of construction and plumbing. This may sound a trifle absurd, but even with an engineer at her service, she can be a great source of grief to him if she doesn't know enough about her department equipment to take care of it and to know when to call him. She must

*Chief Dietitian, St. Luke's Hospital, Denver. This paper was read before the Colorado Hospital Association, September 16, 1933.



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be able to keep records and accounts for her own information so that she will not have to depend upon the bookkeeper for detailed information for her department. Some larger hospitals furnish the chief dietitian with a secretary to keep daily costs sheets, inventories, student reports and various department records. Even with this advantage, the dietitian must be able to check the work done in the department.

The administrative dietitian may be said to have acquired her profession from the chef (or steward) and from the executive departments of the hospital. From the chef she has taken meal planning and the supervision of meal preparation, also the direct control of the kitchen and employees. The ordering of supplies has also been taken over from the chef. From the executive department she has taken over the responsibility for the food costs and the organization of the department. She is familiar with the markets, food supplies, standards and qualities. In larger hospitals the dietitian keeps the department records. In some cases she has the dietary department store room containing the staple supplies and controls the issues for the day.

One might well ask, "Why the administrative dietitian?" Why not leave all of these various responsibilities to the departments or persons who formerly took care of them? The one big reason is that administrative dietitian is the means of tying together the food administering department under one head. The working of any group of people must be guided. They must function as a unit. The administrative dietitian affords a head for the dietary unit of the hospital. Why not have a non-professional person in charge of that unit? The hospital could still maintain a therapeutic dietitian in the diet kitchen. There, of course, we break the unit by putting the diet kitchen and the main kitchen under separate heads. The administrative dietitian is a person who has had hospital training and who is capable of seeing the whole situation from the hospital's view point. She also sees the department as a whole, whereas under the old method of distribution of responsibilities, each person

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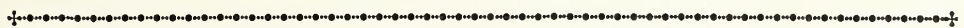
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carrying any responsibility would be inclined to see only their side of the situation. Unless all parts of the department are directed by one person, there is little chance of them all pulling in the same direction.

There is quite a bit of discussion among hospital authorities as to whether or not the dietitian should do all of her own buying. We, of course think that she should. Our main reason for believing that the dietitian should act as the purchasing agent for her department is that it helps to maintain the unity of the dietary department. She is responsible for the quality of food produced. The food is accepted, prepared and served from her department. If the food delivered does not meet with her standards of food specification, she must consult the purchasing agent before she can reject it. The dietitian who sees the salesman herself can consider food prices and foods on the market before writing the menus. If she orders through a purchasing agent, she writes the menus and then puts in her orders. Substitutions made by the purchasing agent to suit the prices and markets may or may not fit into the menus as planned for the week. This applies in particular to the perishable supplies. In the case of staple supplies, if a substitution is made by the company, the dietitian must again consult the purchasing agent in regard to price as well as the quality. In some hospitals there is a division of the purchasing power. The dietitian buys the perishable daily supplies and the purchasing agent buys the staples for the store room. This system is often quite satisfactory, because a set of specifications as to the grades and brands of foods can be made and need not change.

The dietitian knows that her department is a service department, that it exists only as a service to the Doctor, the nurse and the patient. Without this ability to serve, it would have no excuse for being. Because the dietary department is a service department, it must work hand in hand with the other departments of the hospital as was pointed out earlier in the program in the two papers on "The Cooperation Between the Nursing and the Dietary Departments."

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In order to obtain this cooperation there must be a head of the dietary department who understands the other person's side of the situation. The administrative dietitian is hospital minded, she has been trained in a hospital and understands its problems and its organization. What does the average chef or steward know of the viewpoints of the patients or of the hospital staff? The dietary department is a large and necessary part of the hospital organization. The hospital needs as a head of this department a person of professional standing, some one who can form a contract between that department and the patient and also between that department and the hospital staff.

The hospital Superintendent's time is valuable. He must have department heads upon whom he can depend to make proper decisions, some one who knows what department difficulties are to be taken up with him, and what ones can be settled outside of the superintendent's office without the administrative dietitian, the Superintendent's time would be taken up with details and routine and organization that could and should be taken care of by a department head. "Why the Administrative Dietitian?" Why a competent head of any department?

Most hospital superintendents have foremost in their minds the question of economy. Does the executive head of your dietary department save money? I believe that hospitals that maintain administrative dietitians are well convinced that they are a financial asset to the hospital. The administrative dietitian is interested in department organization and in time saving schedules and systems, as well as in food costs and budgets. The saving of time and labor saves money.

Another reason for the existence of the administrative dietitian is to have in the hospital some one capable of giving proper training to the students. In the case of dietitian interns, of course, that would not be necessary if the hospital has no use for the administrative dietitian, since the therapeutic dietitian could give her training in diet therapy. Some nursing schools provide for the student nurse to spend some time in the administrative section of the diet department. Such a plan calls for some one to supervise

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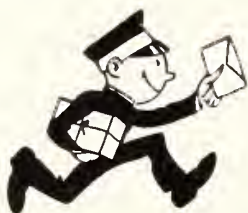
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and instruct just the same as the therapeutic dietitian supervises and instructs in the diet kitchen.

There are comparatively few administrative dietitians. This is true because there are few hospitals large enough to give the time and personal to such an organization. It is also true because there are few dietitians with the training and experience necessary for handling such an organization. Another reason for the shortage of administrative dietitians is that phase of dietetics holds little charm for most of us. The majority of the girls finishing dietetics training feel that the life of an administrative dietitian is much less interesting than that of the therapeutic dietitian. They are interested in the medical side and in working with the patients and doctors. They have much more intensive training in diet administration and are not interested in organization, schedules and costs. Since the dietetics training courses emphasize diet therapy, where does the administrative dietitian get her information? At the present time she gets its mostly from experience, which involves a great deal of time. Upon finishing training she takes a position in a diet kitchen, then perhaps she goes to a larger hospital as main kitchen dietitian and first assistant to the administrative dietitian. Her next step in experience is as the chief dietitian in a hospital approximating 200 beds in size. She is then ready for a truly administrative position with a main kitchen and a diet kitchen dietitian assisting.

The American Dietetics Association is now considering a course for the commercial dietitian, which will include institution management in a more intensified degree. It will provide for affiliation with administrative departments of institutions of good standing, tea rooms and hotels as well as hospitals. Since this is being done to produce more efficient commercial dietitians I feel that a similar source will be planned for those girls wishing to go into the administrative field. For them the course would undoubtedly include housekeeping problems, since in many hospitals the chief dietitian is also the head of the housekeeping depart-

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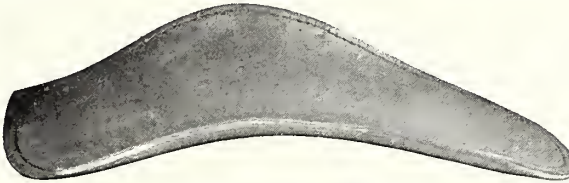
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ment. Such a course would enable us to offer to hospital superintendents dietitians with administrative training that could be improved only by a short period of experience. I feel sure that if hospital superintendents knew that they could obtain a dietitian with such a background, they would be much less skeptical of her value.

Since the title of this paper was "Why the Administrative Dietitian," I have assumed that there were at least some members of the State Hospital Association who have serious doubts as to the value of the administrative dietitian. I hope to have been able at least to make some of these members hesitate before deciding that the administrative dietitian will not be both a professional and financial asset to their organization.

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The men who are seldom behind in their dues
And who from the meeting do not carry news,

Who attend to their duties and don't seek a kick;

These are the men that the crank calls "The Clique."

We should be proud of members like these—

Tho they call them "The Clique" or whatever they please;

But there are some people who always find fault,

And most of this kind are not worth their salt;

They like to start trouble but seldom will stick—

And leave all the work to be done by "The Clique."
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* * *

A venerable judge sat in a place of honor at a reception. As a young lady of dazzling charm walked past he exclaimed voluntarily, "What a beautiful girl!"

The young lady overheard the compliment, turned, gave him a radiant smile, and said, "What an excellent judge!"

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EDITORIAL NOTES AND COMMENT

United We Stand

IF one word could describe the momentous actions of the American Medical Association taken at Cleveland last month that word would be Unity. Many times before we have been exhorted to better our unity, lest we be divided and fall. But this year, though questions supposedly certain to raise controversy were presented and discussed, delegates representing every part of the United States demonstrated plainly even to the veriest outsider that the medical profession of this country is at last united through its mother organization to fight for preservation of its rights, for the high quality of medicine it has developed, and for its logical programs for the betterment of public health.

All who have read newspaper stories of the session or who followed the advance reports through the Journal A.M.A. realize that health insurance and allied problems of medical economics occupied most of the time of the national House of Delegates. Seldom has the House met longer, never has it worked harder to dispose of a mass of business in a short time. No one article, no one issue of Colorado Medicine can adequately present its decisions. This, then, is only the first of a series of discussions intended to present Colorado Medicine's views of the policies laid down at Cleveland.

More important than the amendments placed in the Principles of Ethics adding teeth to that basic document, more far-reaching than any of the several resolutions adopting definite policies toward hospital relations, contract practice and socialization

schemes, the militant attitude of uniting behind just one national medical spokesman—The American Medical Association—stands out as the highlight of the meeting.

Specialization has given birth and growth to many national societies. With no disparagement of the good such societies have accomplished, it nevertheless is patent that the American Medical Association is the only thoroughly representative organization capable of speaking for American medicine as a whole. Its membership of approximately 100,000 includes roughly two-thirds of all doctors of medicine in the country, a clear majority. Its percentage of the active practicing physicians is even larger, for the Directory includes all who are licensed to practice medicine, those just out of school and not ready to join, those retired and no longer active, and in five states including Colorado even the osteopaths because those states give osteopaths the same broad license given doctors of medicine. Therefore the A.M.A. membership probably includes three-fourths or more of the active practicing physicians in the United States.

How, then, can any other organization, perhaps representing only one specialty or one small section of the country, attempt to speak for the medical profession of the United States? How does even the American College of Surgeons dare to dictate health insurance schemes to American medicine? In well chosen words, that is just what the American Medical Association, through its House of Delegates, said to the College of Surgeons. No stronger condemnation has ever issued from the national

House than that resulting from what most delegates termed an underhand attempt of the Board of Regents of the College of Surgeons to anticipate the larger group. The national House demanded an explanation and reminded those Regents that they, too, are members of the A.M.A. and subject to policies made effective by county and state medical societies. The House of Delegates includes, as mentioned before, representatives of every state and territory, many of them Fellows of the College of Surgeons, yet with one voice that fairly shook the meeting hall they expressed their resentment and made it plain that no longer will the mother organization stand for dictation from its children.

How would the Colorado State Medical Society like to have one of its county societies or one of the specialty clubs announce that hereafter the profession of Colorado will advocate such-and-such a new kind of medical practice?

We congratulate the American Medical Association on its firm stand. We feel certain Colorado will back up that stand as strongly as any state in the country. We are sorry that the College of Surgeons was the child that had to be spanked and we feel at heart that the whole membership of that College could not have been behind the socialistic scheme promulgated by its Board of Regents. The position of American medicine is now clear. Thumbs down on national health insurance.

(Further comment upon policies adopted at Cleveland concerning new forms of medical practice will be found under Secretarial Notes and Comment, this issue.)



Sickness Insurance

ECONOMIC changes affecting the practice of medicine are sure to come in a country which is undergoing sociologic and financial changes, such as have disturbed America in the past years. These changes will be satisfactory to practitioners of medicine only if the medical practitioner takes enough interest in the matter to get an understanding of what is happening and what is proposed. Health insurance has aspects that seem at-

tractive and reasonable. Sickness insurance, when presented with the skill and enthusiasm that makes a good solicitor, may seem like health insurance, but it is something very different. Insurance against effects of sickness has been tried under different plans, voluntary or compulsory, by various countries in Europe. After the trials made in the last forty years, there is no need to accept as conclusive the statements and theories of the promoter about it.

In the A. M. A. Bulletin, the official organ of the House of Delegates, for April, 1934, is published a critical analysis of Sickness Insurance, as a preliminary report of the Bureau of Medical Economics of the A. M. A. Any Fellow of the A. M. A. who will read this report can come to his own conclusions as to whether sickness insurance is a good thing to have. He may judge how the interests and welfare of the patients must be considered and guarded to make general sickness insurance beneficial, or even tolerable, under any scheme. Such insurance was proposed as a way of helping the underpaid workers to meet the financial hardships inflicted upon the poor by unemployment from disease; it also aimed to shorten their periods of disability by getting for them the medical service they needed.

For centuries, medical service has implied a close personal relation between physician and patient. During those centuries medicine advanced in scope and efficiency. Neither physicians nor wage workers are especially responsible for poverty. But the poor suffer from the unwholesome conditions under which they live, and they need medical assistance which often they cannot secure. The plan of having all workers contribute to a fund that could be used for the unfortunate ones who fell sick was proposed as a remedy. It was a financial device to meet a financial difficulty and did not especially attract the interest of physicians. The physicians went on ministering to the immediate needs of patients—while men, interested most in the development and organization of financial enterprises, turned to the organization and management of insurance companies and "friendly societies" which later went on to schemes of compulsory in-

surance that gathered funds from all workers.

It was natural that in a business enterprise the organizers, administrators, and directors of the enterprise should adopt its rules, determine its policy and make its decisions. It was also natural that business men, without any general acquaintance with the relations of physician and patient, without any interest in medical science, should ignore the importance of personal relations and the need of scientific education and devotion to health interests. To them, scientific investigators and enthusiastic health authorities were only trouble makers to be smothered out and eliminated by arrangement of administrative machinery or application of the proper amount of "oil" to avoid friction. When the limits of insurance by private companies had been reached, compulsory sickness insurance by the government was devised. The taking over of financial control by government officials did not bring any more attention to the medical aspects of sickness.

In different countries, with different races, sickness insurance has everywhere shown much the same tendencies. The worker who has paid for protection wants to get something for his money. If this is only possible by being unable to work, he is likely to take every opportunity to get and remain on the list of the disabled. The doctor, paid by the company or bureau that would have to pay sick benefits, is assumed to be working to keep the applicant from getting a benefit to which he thinks he is entitled. This substitutes distrust for the personal confidence and cooperation essential to the medical aid that might be given to shorten sickness and bring health. It puts physicians and patients at cross purposes and ends the cooperation essential to any good result. Health insurance requires, and must be based upon personal cooperation. That will make the doctor a real teacher and the patient an eager pupil ready to learn everything he can to restore and maintain his health.

Insurance is for protection from the effects of some calamity which no effort of the person who seeks protection can prevent. Health is something to be desired, but it is

attained chiefly by the care, prudence, and foresight of the person who desires it. Next to the patient's own efforts, the health teaching of the medical advisor is the best protection for health. The mutual understanding and close cooperation of physician and patient must be preserved. E. J.



Denver's Preschool Child and His Mother

WHO has not thought many times that life would be different if someone had understood him better when he was growing up? Or perhaps he only knows that he has to fight jealousy, fears, and the desire to be the center of attraction. Psychologists say that such traits are learned or developed during childhood and that their foundations probably are laid in the preschool years.

Denver's Parent and Preschool Health Education Demonstration was begun seven years ago by the Denver Parent-Teacher Association and The Denver Tuberculosis Society. It was set up to direct attention to the physical, mental, social and emotional needs of children between the ages of two and five. Each child enrolled in Preschool is given a physical and dental examination during the fall of the year through the cooperation of the Denver Branch of the Rocky Mountain Pediatric Society and the Denver Dental Society. The arrangements for the examinations are made by The Denver Tuberculosis Society. A public health nurse of this organization follows the results of the examinations and urges the correction of defects by family physicians and dentists.

Four hundred and sixty-nine children were graduated from Preschool and entered kindergarten last year. Among these children, 682 physical and dental defects had been found. Before they left Preschool, however, 547, or 80 per cent, of the defects were corrected. Ninety-seven per cent of the surgical and medical corrections were made by family doctors. Three hundred and forty-seven of the children, or 74 per cent, had received toxoid, and 321, or 68 per cent, had been vaccinated. It is believed that the record of the present year will be better than that of last. Those entering

kindergarten in January, 1934, showed a higher percentage of corrections. There appears to be a correlation between attendance at Preschool and number of corrections made; that is, the more a child attends, the larger the percentage of corrections.

The 1,012 children enrolled are normal mentally. With an average attendance of twenty in each center, and with meetings only twice a month, the trained nursery school teacher in charge could not give the time required to markedly sub-normal children. The latter therefore are referred to the Child Guidance Clinic at Colorado General Hospital for special attention.

Meetings of the thirty-six children's and mothers' groups are held twice a month from September to June in the public school buildings. The unique feature of Preschool is that mothers and children attend school together. While the children are enjoying an hour and a half in a nursery school setting, their mothers are discussing problems of child care and training in a nearby room. Discussions planned by the professional staff of The Denver Tuberculosis Society center around such subjects as the principles of habit formation, and the nature and control of emotion. An attempt is made to solve problems, but no specific formulas are given. Suggestions are presented from those who have dealt with similar problems. The lay leaders serving as chairmen of discussions in the mothers' groups refer frequently to authorities in the field. (The librarians in the public libraries say they can not keep up with the increasing demands for the literature suggested.)

Preschool is an organized effort on the part of parents and educators to make life saner and happier for children today and tomorrow by consideration of their needs. And through a better understanding of the job, parenthood becomes a more satisfying experience. Thus, the children and parents of Preschool in Denver are receiving a real advantage.

Physicians are cordially invited to attend any of the Preschool sessions. The schedule of meetings may be obtained from The Denver Tuberculosis Society.

Another "Industry" Has Gone Astray

THE "Foot Clinic," operated by doctors of this and that and so-called specialists, seems to be a success. Their advertisements, and abundant adherents, attest this thorn in our midst. The people like it. Again, it's our fault. People have for ages, and with reason, been given the impression that warts, corns, bunions, weak arches and toe nails are beneath our dignity. They will seek relief from little things; their importance must be big to someone. Thus we have tacitly encouraged people to go astray. Shoe manufacturers and women will undoubtedly remain more interested in style than in comfort. Hence this field of painful little ills will not dwindle away.

Often our patients casually mention the money they have spent on treatments for these ailments, usually with little or no relief or with enough temporary comfort to return many times for more. We find they have never been told a few simple facts which would have led to a cure months or years before. Shoe manufacturers have measured their wares in lengths and widths. The third dimension is somehow slighted and the in-step, which also varies, is not duly considered. Undue pressure thereon forces the little toe, and often others, against the walls of the shoe. Corns and callouses form; when "cured," the process is repeated—fine for the foot monger.

Next time a patient mentions foot troubles, have her remove the shoe and bear weight on a sheet of paper. Draw a line about the borders of her foot; when she steps aside, place her shoe within these boundaries. Note that the average foot is about one inch wider than the shoe which imprisons it.

Doctors of medicine, if you have forgotten how to treat these little ills, brush up on it! Make them as important to yourselves as they are to your patients. Cure them, explain their cause, and retain the confidence and gratitude which is rightfully yours.

THE TUBERCULIN TEST, ITS VALUE AND LIMITATIONS IN THE DIAGNOSIS OF CHILDHOOD TUBERCULOSIS*

H. J. CORPER, M.D., Ph.D.
DENVER

In the field of tuberculosis, I believe the majority of us will agree that the three most outstanding practical discoveries of the past century have been the indisputable demonstration by Robert Koch of the tubercle bacillus as the causative agent of the disease (1882), the discovery of tuberculin (by Koch in 1890) and the demonstration of its diagnostic value (1907-9), and finally the discovery of the Roentgen ray (1895) and its practical application to clinical diagnosis. Without these weapons we would step back to the appalling mortality figures of a century ago; mind you, at that, many of us are not any too proud of our present unwarranted high morbidity figures in certain communities.

Opie and his colleagues in Philadelphia, and Myers of Minneapolis, as well as some of our European confreres, have amply demonstrated the value of tuberculin and roentgenographic surveys as a most potent preventive in tuberculosis. So, too, we are now permitted to reflect upon a dangerous earlier teaching which led us to believe that a little tuberculosis would even be beneficial and to seriously consider a warning by Stewart¹ that the reverse is true and that the road of prevention is the safer to pursue. This fact and the very insidiousness of tuberculosis has restored the early nineteenth century conceptions of Louis of the latent and the manifest disease and of the childhood form as differentiated from the adult form and this again makes a detailed consideration of tuberculin as a diagnostic agent a worthy subject at this time. Almost from the inception of tuberculin, a voluminous literature arose dealing at different times with various phases of its use. Originally contributed as a therapeutic agent, its significant value as a diagnostic agent only

later was disclosed, and for a time even this was disputed by some because of lack of knowledge regarding its action.

The types of tuberculin reaction are too well known to merit more than passing mention, and of the three—the general or systemic reaction, the focal reaction, and the local reaction—the latter, the local skin reaction, is the only one now generally used practically for diagnostic purposes because of the ease of discerning a reaction as well as the general absence of danger from its use.

Before proceeding with the title subject of tuberculin diagnosis, let us consider for a moment the mechanism of the reaction. This has been fairly exhaustively studied but with indecisive results, except in so far that there appears now to be a fair unanimity of opinion that the reaction is a specific protein reaction to be classed with local allergic and anaphylactic reactions in general, and it is conceded that sensitiveness can be produced either with the pure protein of tuberculin or by infection with the representatives of the group of tubercle bacilli, the pathogens, dead or alive. According to Seibert² the reaction is only a relatively specific one and this must be given due consideration in its use in diagnosis.

The nature of the tuberculin reaction, though still unsettled, has been explained by Wolff-Eisner (1910) and Nicolle (1908) as being a result of the interaction of the tuberculin with the sensitized tissue resulting in the formation of a toxic product—a lysin-endotoxin reaction—resembling the concepts of Friedberger, Vaughan, and Abderhalden. Bail (1912) believed he obtained a toxic material by injecting simultaneously crushed tissue from a tuberculous animal and tuberculin, but the majority of the subsequent workers could not confirm this. Long and Seibert³ prefer to agree with Selter that tuberculin is a specific irritant of the sensitized cell, which poisons the cell without, however, being bound by it, and they com-

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ment that this is "a statement of our ignorance of the true nature of the reaction rather than an explanation of it." Their work, however, has disclosed the fact that the active principal of tuberculin is a protein, crystallizable and capable of being prepared in pure form by precipitation from a non-protein medium by trichloroacetic acid. Sensitized animals do not act on tuberculin in such a manner as to render it toxic for normal animals, nor do they bind the active principle so as to render a tuberculin preparation less toxic for another tuberculous animal.

Another noteworthy finding regarding tuberculin and contradictory to older contentions is the fact that specific cutaneous sensitization can be produced with the highly purified, undenatured protein of tuberculin. This sensitization is of as high degree and of the same type as that produced by infection with live or dead tubercle bacilli. Earlier failures were no doubt due to the poor antigenic form of the protein chosen. Old tuberculin is prepared by heating and the antigenic capacity is thus reduced. Thus an enormous literature sprang up describing and explaining the differences between the tuberculin reaction and other forms of protein sensitization. Such differences are only minimal. The reason why O. T. gives such good reactions in sensitive tuberculous patients is probably that they are capable of reacting to a poorer antigen because of their high degree of sensitization. Obviously, then, it is not essential to use the most highly antigenic tuberculoprotein in performing the tuberculin skin test diagnostically. In fact, it may be advisable to use the poorest antigen that is still capable of eliciting the reaction in order to avoid sensitization, according to Seibert. Exactly this has been done in practice in using O. T. for tests and, although purer and better products are now available, O. T. may be retained for clinical purposes for the time being and especially for general use since practically all the available data has been obtained by using O. T. as test.

With these fundamental facts presented we can quickly consider, in the short time allotted, the value and limitations of the tu-

berculin test in the diagnosis of childhood tuberculosis. In general there are no strong opponents to the use of tuberculin for diagnostic purposes at present but there are two schools of belief grouped according to their viewpoints, the one school being decidedly favorable and basing the evaluation on the merit of tuberculin for prevention and on mass survey statistics, while the other school might be called the individualistic or bedside group who are less favorably disposed to its absolute value in diagnosis and see predominantly its limitations. These views are, therefore, illustrative and will be presented under the two chapters of Value and Limitations.

The Value of the Tuberculin Test

American investigators have particularly led in the consideration of tuberculin as a valuable and exact diagnostic test. Myers of Minneapolis, after noting the tuberculosis picture has changed in many parts of the world since the time of Pirquet and Mantoux (early 1900's), states that "the tuberculin test is one of the most accurate tests ever discovered by man. It is not infallible. Like every biological test it occasionally fails⁵. The tuberculin test after shifting from one part of the stage to another has recently developed into the most important factor in the diagnosis of early tuberculosis⁶." He is firmly convinced that the general use of tuberculin as a diagnostic agent in childhood is most desirable and should become a routine practice at stated intervals from early infancy onwards. It tells us when tuberculosis is present before any other phase of an examination (symptoms, physical signs, or laboratory findings) is of any avail. Pritchard states⁷ that "a child reacting to tuberculin has one of three conditions, namely: (1) a persistent exposure to tubercle bacilli; (2) the infection has established within the human organism and is lying dormant or latent; (3) the child is suffering from the disease tuberculosis." He says further, "The oft repeated remark 'everyone has some tuberculosis' is not proved, and such statements misinform the public and act as a detriment to public health work." Wolff, Stone and Eberson⁸ of California studied a group of child suspects and found that symp-

toms and physical signs are not conclusive, a history of contact is of rather limited value, some roentgenological findings are pathognomonic, and the grade of the tuberculin reaction is of definite value. Johnston and Chadwick⁸ found that a group of Detroit children of five to fifteen years gave an incidence of reaction of 14.3 per cent and both skin test and roentgenogram were positive in 4.4 per cent. Dow and Lloyd¹⁰ consider that a positive Mantoux reaction to tuberculin signifies that the child is infected by the tubercle bacillus. In attempting to localize the lesion in Mantoux positive children, the chest radiogram is not so helpful as might have been supposed because the lesions may be invisible unless calcified, and a high percentage may be non-tuberculous. Commenting on his experiences with various tests, S. Lyle Cummins¹¹ remarks that "the cutaneous tuberculin tests are reliable tests for allergy, and, by implication of infection, they are not of much value as tests for clinically active tuberculosis in adults."

Regarding the type of skin tests and the type of tuberculin to be used it is usually conceded that the test assuring the more exact dosage such as the Mendel-Mantoux intracutaneous is preferable, although the Pirquet may fulfill certain desires, while either human or bovine old tuberculin can be used equally well for clinical testing. Pope¹² believes that although the Pirquet test is less sensitive than the intracutaneous test, its simplicity makes it much more acceptable when parental consents are required. Chadwick¹³ suggests that the Pirquet be used first, especially when the incidence is high. Slater and his colleagues¹⁴ as a result of comparative tests in the same children conclude the Pirquet is preferable in the younger child and in general practice, while the Mantoux is preferable in the older. The Mantoux gave 10.4 per cent positives while the Pirquet gave 9.15 per cent in their series¹⁵. They found only 15 to 134 reactors with demonstrable x-ray lesions. On the other hand Dickey and Seitz¹⁶ of Stanford University believe that the Pirquet test should not be employed in surveys since it gives erroneously low figures.

At the National Jewish Hospital, Fried-

man, Black and Esserman¹⁷ found the Pirquet and modified Moro tests utterly unreliable and prefer the Mantoux and "single puncture" technic, the latter yielding results as accurate as the Mantoux test. Forbes and Steinberg¹⁸ were favorably impressed with their results with the multiple puncture Craig test.

Gaisford¹⁹, De Sanctis and Reisman²⁰, and Blair and Galland²¹ compared human and bovine old tuberculin in children and obtained approximately the same results with either tuberculin, although most will agree that when one tuberculin is being used it should preferably be prepared from human bacilli.

The Limitations of the Tuberculin Test

A biological test depending for its outcome upon the reaction of the living organism and the reliability of the test reagent and for its performance and evaluation upon an intelligence of the physiologic and pathologic mechanism of the body cannot be entrusted to the untrained for interpretation and especially so when considering the individual patient. This is emphasized best in considering the limitations of the tuberculin test. Moncrieff²² discusses the results of the intradermal tuberculin reactions as they appear to the observer at the bed-side, faced with some problem in diagnosis. He found that the instances where the test gives reliable and necessary help are limited in number. The value of a negative reaction is reduced by the possibilities of several fallacies which must be borne in mind and the positive Mantoux must be utilized for diagnostic purposes with considerable restraint. For surveys of large groups of children he admits this test has proved its value, but for the individual patient with vague symptoms the Mantoux reaction, in common with all tuberculin tests, may be a good servant but is a dangerous master. Thus Schnippenkötter²³ found the intensity of the reaction not to vary in certain stage tuberculous adults although the reaction was greater in the evening and after exercise than in the early morning and after rest. On the other hand, Roberts²⁴ calls our attention to the fact that "variations in tuberculin allergy occur, and cognizance of their existence is essential if

clinicians are to interpret reactions correctly." Ossoinig²⁵ found that the reaction to O. T. cutaneously, percutaneously, and subcutaneously varied considerably over a period of three years in children." Schwartz and Heise²⁶ record variations or changing sensitivity in tuberculous patients but offer no explanation.

That tuberculin treatment itself will reduce tuberculin hypersensitiveness in children was shown by Fernbach²⁷ in 1932. He found the grade of local sensitiveness varied in the individual case following tuberculin treatment and the local sensitiveness did not parallel the acquired general insensitiveness although there was a relation between the grade of local insensitiveness and the time, after discontinuing tuberculin administration, to complete restoration of local hypersensitiveness. The local allergy at the end of long intensive tuberculin treatment is specific.

That tuberculin hypersensitiveness can be produced in patients free from tuberculosis by cautious previous subcutaneous treatment with O. T. is evident from Hämel's work²⁸ on twelve cases, though large doses were used.

Truly non-specific reactions have occasionally been recorded at times, especially to glycerol bouillon. Fernbach and Herzger, in 1927²⁹ record a certain German glycerol bouillon preparation presenting tuberculin-like properties, and this was verified in a high percentage of intracutaneous positives for meat extract and peptone, although in guinea pigs Demohn and Fernbach³⁰ found the reactions to be weak and to retrogress quickly as well as lack regularity. Moro and Keller³¹ in the same year reported that tuberculin negative children did not react, while a high percentage (84 of 93) tuberculin positive children and adults (16 of 17) reacted to the glycerol bouillon. This only occurred with concentrated and only rarely if at all to unconcentrated bouillon, or other glycerin bouillon preparations. He concluded it was not due to tuberculin contamination nor did meat extract from tuberculous cattle produce it. The reaction depended on the period of residence in the incubator before concentrating, according to Keller and

Dölter³², but the exact cause was not discovered. In 1930 Troisier and Monnerot-Dumaine³³ believe the Pirquet tuberculin reaction to be not strictly specific and obtainable with glycerol bouillon concentrated like tuberculin although it is feebler. The proportion of such reactions increases with the age of the individual but none occur until after ten years of age. They advise a control with bouillon identical to that used to prepare the tuberculin.

Aside from the technical phases in tuberculin testing there are important factors particularly concerned with the patient himself which may be decisive in the outcome of the tuberculin test. Thus Pilcher³⁴ of Western Reserve presents experimental evidence that a decrease in tuberculin (O. T.) sensitivity depends, in part at least, upon lessened circulation in the skin and subcutaneous tissues and this is the basis for the lessened or absent reaction in undernourished and emaciated subjects, subjects with tuberculous meningitis, and measles, while ultraviolet radiation seems to exert no effect. Reichel and Milbradt³⁵, in studying the influence of nonspecific factors on the tuberculin reaction, found that the local reaction was accentuated in (a) individuals with tender, soft skins; (b) with arterial hyperemia (experimentally produced by hot baths); and (c) following the peroral and local use of iodine. It was diminished (a) in individuals with dry, hard or brittle skins; (b) by venous hyperemia (constriction stasis); and (c) by inhibiting arterial blood flow by adrenalin. The tuberculin "initial" reaction is increased in Basedow's disease and bronchial asthma; it is diminished in sepsis, marasmus, malignant tumors, liver injury, cardiac insufficiency, influenza. It is abolished in measles and whooping cough. As a result of two years' study and several thousand tuberculin tests on about 1,000 patients, Eddy and Mitchell³⁶ report that there is often a depression of skin response to tuberculin in acute diseases, measles, diphtheria, scarlet fever, varicella, poliomyelitis, pneumonia, gastroenteritis, and others with febrile reactions; the previously positive may become negative returning to positive again during conva-

lence. The depression of skin response appears to depend on the febrile state present. Dickey³⁷ believes the positive reaction in 100 per cent of his cases of erythema nodosum in children under 15 years as evidence of its tuberculous etiology.

Parker Jr. and his colleagues³⁸, in 1932, obtained fewer positive tuberculin reactions in patients with diseases of the lymphoid and myeloid tissues and with malignant diseases as compared with the normals and tuberculous patients, using human and avian tuberculin; this was true of Hodgkin's disease also. According to Sulzberger and Wise³⁹, dermatologists lay great stress upon the tuberculin reaction for differentiating true tuberculosis from sarcoid types of skin diseases.

Peyrer⁴⁰ found tuberculin hypersensitive-ness non-specifically increased in acute articular rheumatism and chorea. In an attempt to determine the influence of acidosis on allergy, Choremis⁴¹ studied three tuberculin positive children before and after hydrochloric acid administration for three and one-half months and found a marked decrease of tuberculin allergy during the "acidotic metabolism period." It has been amply demonstrated that full strength O. T. keeps its potency, if uncontaminated, for long periods of time and Pilcher⁴² has found dilutions of 1:10 or 1:100, with 0.2 per cent tricresol as preservative, would keep in the ice chest (4° C.) for a year or more without practical loss of activity.

Summary and Conclusions

The tuberculin test for the diagnosis of childhood tuberculosis when properly performed and evaluated is one of the most valuable biological tests available to man. Its evidence in the light of present day knowledge is almost indisputable. It is particularly valuable for community and survey purposes bearing on preventive measures for children and for this purpose it possesses a high degree of efficiency.

Certain fundamental training and knowledge is essential to its proper performance. The choice of local type of test is individual and concerns mainly a proper and sufficient-

ly prolonged contact of the reagent (O. T), as administered, with the skin.

The limitations of the test are mainly individual and concern a full recognition of the factors, such as only a physician can evaluate, which may influence the outcome, such as local and general physiologic and pathologic conditions, as well as a recognition of the fact that in certain cases the finding should be overbalanced by other contradictory clinical, roentgenological, and laboratory findings. A properly standardized O. T. is still serviceable for diagnostic purposes according to the best advices available at present. Purer preparations, free from broth and extraneous materials, will no doubt eventually replace Koch's O. T.

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CARDIOVASCULAR OBSERVATIONS IN TWO HUNDRED FIFTEEN NEUROSYPHILITICS*

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The reported incidence of cardiac pathology in cerebrospinal syphilis varies from 10 to 100 per cent. A preliminary report¹, from this hospital and based on the first group of cases studied in this series, indicated that the incidence of cardiac pathology in cerebrospinal syphilis is approximately 35 per cent. This report embodies the study of the cardiac changes in 215 unselected cases of neurosyphilis which have been observed during the past four years at the Colorado Psychopathic Hospital. For the purpose of this study, each case underwent a complete physical examination with special emphasis on the heart. Each case was seen by two physicians and, when any pathology was found in the heart, a third man, an internist, was consulted. In addition to the physical examination and electrocardiographic study, fluoroscopic and radiologic records were made.

The cases were divided into four groups as follows: Class I, those cases which showed no physical or x-ray evidence of cardiac pathology; Class II, those cases which showed no x-ray evidence of pathology, but did show cardiac changes demonstrable from a physical standpoint; Class III, those cases which showed no physical evidence of cardiac pathology, but did show definite cardiac changes demonstrable by x-ray; and Class IV, those cases which showed evidence of both x-ray and physical pathology. The cases were also classified as paretic, tabo-paretic, tabetic, or meningo-vascular and were designated as Groups A, B, C, and D, respectively.

The criteria for this classification are as follows: All cases were considered paretic, Group A, who showed the early signs of paresis as reported by Bunker². These are irritability, bradyphrenia, loss of weight,

forgetfulness, hypersomnia, speech defect, insomnia, judgment defect, fatigability, digestive disturbances, impairment of vision, headache, and rheumatoid pains. The paretic colloidal gold curve was a guide in diagnosis especially if there was no history of previous treatment. Cases were classified as tabo-paretic, Group B, if they showed in addition to any of the above symptoms, any signs of irritation of the posterior nerve roots such as hyperesthesia, the characteristic sharp-shooting "lightning pains," disturbance in gait, impairment of position sense, loss of bladder control, gastric crises, trophic changes, the loss of light reflex with or without absent ankle and knee jerks. Cases were designated as tabetic, Group C, which showed the tabo-paretic symptoms enumerated above without the paretic symptoms. In addition these cases had a tabetic or middle zone colloidal gold curve. Meningo-vascular cases, Group IV, showed subjective symptoms of headache, dizziness, fainting, convulsive phenomena with or without hemiplegia, physical signs of cranial nerve involvement especially of the third or oculomotor nerve, and a middle zone gold curve.

In order to obtain comparable data, 100 consecutive non-syphilitic patients were studied by physical, x-ray, and electrocardiographic examinations. Patients were considered non-syphilitic with a negative blood and spinal fluid Wassermann. These were divided into Classes I, II, III, and IV as above. The age distribution of this group was as follows: third decade, 16 per cent; fourth and fifth decades, 64 per cent; and sixth decade, 20 per cent.

Table I shows the distribution of the 215 neurosyphilitic cases with respect to age, Groups A, B, C, and D, and Classes I, II, III, and IV. It will be observed from the table that 6 per cent of the cases fell into the third decade, 63 per cent in the fourth and fifth decades, and 31 per cent in the sixth and seventh decades. Thus, the majority of both the control and experimental

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groups fell into the fourth and fifth decades, a period of life considered to be relatively free from arteriosclerosis. Moreover, these figures are in accordance with the known fact that the greater percentage of neurosyphilis appears in these two decades.

ination. It is of interest to compare these 103 cases with our control group of 100 cases. Ninety-three of this latter group showed no cardiac abnormality on the basis of physical or x-ray examination and, therefore, fell into Class I. An examination of

TABLE I

TO SHOW THE AGE DISTRIBUTION OF THE ENTIRE GROUP OF 215 CASES WITH REFERENCE TO GROUPS A (PARETIC), B (TABO-PARETIC), C (TABETIC), D (MENINGOVASCULAR); AND CLASSES I (NORMAL PHYSICAL, NORMAL X-RAY), II (ABNORMAL PHYSICAL, NORMAL X-RAY), III (NORMAL PHYSICAL, ABNORMAL X-RAY), IV (ABNORMAL PHYSICAL, ABNORMAL X-RAY).

GROUPS	Total	Ages	Ages 31-40					Ages 41-50				Ages 51-60				Ages 61-70			
		21-30	I	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
A. PARETIC																			
Number of cases	145	9	45	1	1	3	28	2	10	7	10	3	6	8	5	2	3	2	
Percentage of 215 cases	67.4	4.1	20.9	0.5	0.5	1.5	13.0	0.9	4.6	3.2	4.6	1.3	2.6	3.7	2.3	0.9	1.3	0.9	
B. TABO-PARETIC																			
Number of cases	15	1					3	1			4	1	1	2	1				1
Percentage of 215 Cases	6.8	0.4					1.3	0.4			1.8	0.5	0.5	0.9	0.5				0.5
C. TABETIC																			
Number of cases	18		2				7		2		4	1	1	1					
Percentage of 215 cases	8.3		0.9				3.2		0.9		3.2	0.5	0.5	0.5					
D. MENINGO-VASCULAR																			
Number of cases	37	4	11			1	4	2	5	1	3		2	3	1				
Percentage of 215 cases	17.5	1.8	5.0			0.5	1.8	0.9	2.3	0.5	1.3		0.9	1.3	0.5				

The table shows that of the cases studied, 67 per cent were paretics, 7 per cent taboparetics, 8 per cent tabetics, and 17 per cent meningovascularluetics. Table I further shows that seventy-three cases, or approximately 34 per cent, of individuals suffering from central nervous system syphilis showed cardiac abnormalities on the basis of x-ray or physical examination or both. It is interesting to note that these pathological changes of Classes II, III, and IV are absent in the third decade, begin with 3 per cent in the fourth, increase sharply to 14 per cent in the fifth, remain at 13 per cent in the sixth, and sharply decline to 4 per cent in the seventh. Thus, we see that, while the greatest incidence of neurosyphilis is in the fourth and fifth decades, 63 per cent, the highest incidence of cardiac pathology, 27 per cent, as measured by the physical and x-ray abnormalities, appear in the fifth and sixth decades, some ten years later.

Electrocardiograms were obtained in 164 of the 215 neurosyphilitics. Of these 164 cases, 103 fell into Class I, that is, individuals with normal physical and x-ray exam-

ination. Table II shows that the neurosyphilitics showed three times as many of the abnormalities listed as did the control group. These abnormalities are R wave low, R wave slurred in leads I and II, T wave changes significant, and coronary changes. The electrocardiogram further shows coronary and myocardial changes in the neurosyphilitic group which were not diagnosed by either physical or x-ray study and were not present in the control group.

TABLE II

ELECTROCARDIOGRAPHIC FINDINGS IN CLASS I ON 103 CASES OF CENTRAL NERVOUS SYSTEM SYPHILIS IN WHICH PHYSICAL AND X-RAY FINDINGS WERE NORMAL, COMPARED WITH CONTROL GROUP.

Electrocardiographic finding	Central Nervous System Syphilis	Control
R wave low	8	5
R wave slurred in leads I or II	12	8
T wave changes significant*	High 7 Low 11 Inverted 4 22	4
Coronary changes**	Unquestionable 6 Probable 3 9	0

*High T wave or T wave inverted.

**Includes Pardee curve.

Of the seventy-three cases which had been shown to be abnormal by physical or x-ray examination or both, fifty-seven were diagnosed as aortitis or aortitis with some complication. All cases of aortitis with or without complications fell into either Class III (normal physical, abnormal x-ray) or Class IV (abnormal physical, abnormal x-ray) which indicates that the x-ray was necessary for the diagnosis of aortitis. Twenty-six of these cases fell into Class IV. Electrocardiograms were obtained on forty-seven of the fifty-seven aortitis cases, and twenty-four, or 51 per cent, of this group showed abnormal readings, while eight, or 17 per cent, were questionable. A total of 68 per cent were either abnormal or questionable.

per cent, were either questionable or abnormal. This would indicate that approximately one-half of the cases suffering from meningovascular syphilis also suffer from cardiovascular pathology which is diagnosed only by the electrocardiogram.

The incidence of electrocardiographic changes in Classes II, III, and IV (abnormal physical, or x-ray, or both) of tabetics, paretics, tabo-paretics, and meningovascular luetics is much higher. Of the sixty cases falling in these classes and groups, the electrocardiograms were normal in eighteen, abnormal in thirty-three, and questionable in nine. Thus, 70 per cent of the electrocardiograms were abnormal or questionable.

In summarizing the results of our study,

TABLE III
SHOWING THE INCIDENCE OF ELECTROCARDIOGRAPHIC CHANGES IN CLASS I (NORMAL PHYSICAL AND NORMAL X-RAY) IN 72 PARETIC, 13 TABO-PARETIC AND TABETIC, AND 18 MENINGOVASCULAR CASES.

ELECTROCARDIOGRAM	CLASS I Paretics	CLASS I Tabetics and Tabo-Paretics	CLASS I Meningo- Vascular
	Normal physical Normal x-ray	Normal physical Normal x-ray	Normal physical Normal x-ray
Normal EKG:			
Number of cases	48	10	10
Percentage of cases	66.7	76.9	55.5
Abnormal EKG:			
Number of cases	17	2	6
Percentage of cases	23.6	15.4	33.3
Questionable EKG:			
Number of cases	7	1	2
Percentage of cases	9.7	7.6	11.1
Abnormal and Questionable EKG:			
Number of cases	24	3	8
Percentage of cases	33.3	23	44.4
TOTALS	72	13	18

Table III shows that of seventy-two paretics in Class I (normal physical, normal x-ray) upon whom electrocardiograms were obtained, forty-eight, or 66 per cent, had normal electrocardiograms; while twenty-four cases, or 33 per cent, showed either questionable or definitely abnormal electrocardiograms. In other words, one-third of the paretics who had negative physical and x-ray examinations, with reference to the heart, had abnormal electrocardiograms. The group of thirteen tabetics and tabo-paretics in Class I showed 23 per cent abnormal electrocardiograms. Table III further shows the electrocardiographic findings in eighteen meningovascular cases in Class I, of which ten cases were found to have a normal electrocardiogram; whereas eight cases, or 44

we find that of the 215 cases of neurosyphilis, 63 per cent fell in the fourth and fifth decades, and 31 per cent fell in the sixth and seventh decades. Of this number, 67 per cent were paretics, 7 per cent tabo-paretics, 8 per cent tabetics, and 17 per cent meningovascular luetics. Of the 215 cases, seventy-three, or 33 per cent, showed cardiac abnormalities on the basis of physical or x-ray examination or both. The peak of these cardiac abnormalities appeared in the fifth and sixth decades. Of the sixty cases in Classes II, III, and IV (abnormal physical, or x-ray, or both), 70 per cent had abnormal or questionable electrocardiograms. Fifty-one per cent of the forty-seven cases of aortitis on which electrocardiograms were obtained showed electrocardiographic abnor-

malities. The 103 cases in Class I (normal physical, normal x-ray) were distributed as follows: Seventy-two paretics with 33 per cent abnormal electrocardiograms; thirteen tabo-paretics and tabetics with 23 per cent abnormal electrocardiograms; and eighteen meningovascular cases with 44 per cent abnormal electrocardiograms, or an average of approximately 34 per cent. Of the 100 control non-syphilitic cases, ninety-three fell into Class I, of which 33 per cent had abnormal electrocardiograms. However, the neurosyphilitic group showed three times as many electrocardiographic abnormalities as did the latter.

Discussion

It has been questioned whether the electrocardiogram may contribute any valuable information which cannot be ascertained by physical examination and x-ray study of the heart. We have found that about one-third of all our cases which displayed no cardiac pathology on the basis of x-ray and physical examination had some electrocardiographic abnormality. Moreover, these abnormalities were usually multiple in nature, and coronary and myocardial changes were diagnosed only by this method. Further, there was a rather high correlation between abnormal physical and x-ray examinations and abnormal electrocardiograms. This correlation is shown in the high percentage (69 per cent) of abnormal electrocardiograms in

the sixty cases falling in Classes II, III, and IV.

It must be borne in mind that this control group consists of hospital patients and perhaps cannot be used satisfactorily for comparative purposes. The true incidence of electrocardiographic changes in a normal group of comparable age distribution is not known. Until such data is available, it is impossible to draw any definite conclusions with regard to the real value of the electrocardiograms in a study of this type. However, we feel that the electrocardiogram does furnish valuable information not given by x-ray or physical examination. At the present time a study is in progress to determine the incidence of electrocardiographic abnormalities in a normal non-hospital group.

This report confirms the earlier one from this hospital with reference to the incidence of cardiac pathology in central nervous system syphilis. On the basis of physical and x-ray examination alone the incidence is 34 per cent. If we take into consideration only the electrocardiographic findings, the incidence is 47 per cent. In other words, approximately 13 per cent of the cases having cardiac pathology will be overlooked unless the electrocardiogram is employed.

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CORONARY THROMBOSIS*

THE "ACUTE INDIGESTION" OF CORONARY THROMBOSIS AND THE ELECTROCARDIOGRAPH
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DENVER

Coronary thrombosis is a term used to designate the blockage of a nutrient vessel of the heart by a thrombus or blood clot. This causes an area of infarction of the heart of lesser or greater degree with a typical symptom complex. This symptom complex is referred to by the laity as "acute indigestion" and a large majority of the deaths reported in the newspapers as acute indiges-

tion are really deaths due to coronary thrombosis.

Our knowledge of the clinical entity of coronary thrombosis is undergoing a development through the aid of the electrocardiograph which is similar, in many respects, to the advance in our knowledge of pulmonary tuberculosis a generation ago through the perfection of the x-ray apparatus. Just as the x-ray used in tuberculosis makes accurate diagnosis possible in the earlier stages before the lesion is large

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enough to produce changes in the percussion note or near enough to the surface for the rales to be heard, so the electrocardiograph proves the presence of thrombus in a coronary artery before signs appear establishing the entity clinically. Furthermore serial electrocardiograms are valuable in coronary thrombosis as are serial films in tuberculosis for the purpose of observing the clinical progress of the case.

Diagnosis

The electrocardiograph is an instrument that registers the electrical currents generated within the heart by its own muscle contractions. We are able to recognize coronary thrombosis with the electrocardiograph because the area of heart muscle supplied by a stopped artery ceases to contract¹, unbalances the normal relationships of these electrical impulses, and produces changes in the electrocardiogram. These variations are a high take-off and a cove-shaped inversion of the T wave as described by Pardee², deviations of the RT or ST interval, and recently even the P wave has been shown to alter³ in many cases. In the absence of an acute pneumothorax, I consider a sudden or rapid shift of the electrical axis, either to the right or to the left, a positive sign of coronary thrombosis. The shifting of the electrical axis is due to the fact that the lesion is large enough to so cripple one side of the heart as to render its action weak. This permits the opposite side to act more strongly in comparison, and the axis shifts. It can be seen that if the opposite side has previously hypertrophied for any cause, and the electrical axis has already shifted fully, there would be no further shift, even with a thrombosis. If the blocked artery is very small, there will be no shifting of forces and no QRS change. The T wave changes are supposed to be due to the ischemia of the cardiac muscle. As our knowledge of the interpretation of the electrocardiographic variations is improving we are learning to determine more accurately the extent and location of the infarct.

After an infarct, time is required for the heart to adjust itself to the new relations of its forces, and during this period the elec-

trocardiographic records show progressive changes. These continue to a certain point and remain constant, or very gradually the records return to the prethrombotic state, showing complete absorption or cicatrization of the lesion or the development of an adequate collateral circulation. I use the term "wandering of the electrocardiogram" for these progressive changes and it is interesting to follow the variations day by day.

If a patient is being studied electrocardiographically, a record should be taken during an attack as it may give invaluable information when compared with later records. Often changes occur in coronary thrombosis which are not in themselves characteristic of the disease but show the presence of a grave heart lesion such as heart block, auricular flutter, and fibrillation. Occasionally there are no abnormalities in proved cases.

Although there may have been premonitory attacks which the patient later recalls on questioning, the typical case of coronary thrombosis starts quite suddenly several hours after an unusual exertion, with a severe unremitting pain located in the substernal, precordial, or epigastric region. It is usually referred down the left arm but may be referred down either or both arms or up to the neck. Shock is often the predominating symptom. The accompanying nausea and vomiting are what give rise to the term of "acute indigestion." Later a train of events follow that are helpful in diagnosis. As a rule the blood pressure drops appreciably, an evanescent pericardial friction rub develops, the heart sounds become indistinct or distant, there is an increase in the leucocyte count, and a slight temperature rise in the course of the next few days.

Differential Diagnosis

In the very acute cases the question of differentiation usually lies between a ruptured abdominal viscus and coronary thrombosis, while in the milder cases the differentiation has to be made between gall bladder disease and coronary thrombosis. Fortunately the more acute the thrombosis the earlier are the electrocardiographic changes,

which may appear almost simultaneously with the pain. In the mild cases the changes may not set in for several days.

Ordinarily and in severe cases the diagnosis is simple as the pain is localized over the precordium, the shock is extreme, the pulse is weak, and the heart sounds scarcely audible. Occasionally, however, the patient is very ill, vomits, the abdomen is rigid, and a complete picture of a ruptured abdominal viscus is present. Surgery here would be disastrous, and cases are known to have been operated with fatal results. The pathognomonic sign of a ruptured viscus is gas under the diaphragm. This can be quickly demonstrated by the x-ray. In case of doubt, I should recommend that both an electrocardiogram and an x-ray film be taken at once. The demonstration of gas under the diaphragm of course proves the case surgical while coronary changes would immediately allay the fear of overlooking an operative condition.

In the moderate or mild cases the question of emergency surgery does not enter, but in these instances we are confronted with an equally important question of differential diagnosis: is the condition cardiac, is it gall-bladder disease, or is it merely a gastrointestinal upset? The following table shows the points of similarity and difference between cholecystitis and coronary thrombosis.

GALL BLADDER

1. Pain without much shock, dorsal type.
2. Nausea.
3. Vomiting.
4. Jaundice fairly common.
5. Mild fever.
6. Pulse remains slow.
7. Heart sounds remain strong.
8. No friction rub.
9. No change in electrocardiogram from day to day.

CORONARY THROMBOSIS

1. Pain with shock or dyspnea, ventral type.
2. Nausea.
3. Vomiting.
4. Jaundice rare.
5. Mild fever.
6. Pulse often becomes rapid.
7. Heart sounds become distant.
8. Friction rub present at times.
9. Changes in electrocardiogram from day to day is pathognomonic.

It is interesting to note that both conditions occur in the same age group, and coronary thrombosis may occur in a case of chronic cholecystitis. It can be seen from

the table how easily these conditions can be confused. In the very mild cases the cardiac basis for the symptoms may be overlooked entirely. In patients over 40 an acute indigestion should be checked with the electrocardiogram or be treated as a case of coronary thrombosis. In my series of cases those showing limited wanderings of the electrocardiogram made good recovery and with few exceptions those cases exhibiting only minimal electrocardiographic changes were scarcely sick at all.

While the electrocardiogram is of the utmost value in certain cases, it is not indispensable. By keeping in mind the likelihood of coronary thrombosis, the diagnosis is so evident that the electrocardiogram becomes confirmatory only. A diagnosis occasionally has to be made in the face of a normal curve or before the typical changes have occurred. In the absence of previous medication, it must be remembered that no matter how badly sclerotic a vessel may be and no matter how abnormal the electrocardiographic curve, the vessel must actually be occluded to produce a "wandering electrocardiogram."

The picture presented by coronary thrombosis is quite different from that of angina pectoris. Angor mortis is notable for its absence in coronary thrombosis. It is not definitely complained of or even admitted by patients although each one knows he is gravely ill. Patients do not stop short momentarily as with angina pectoris, and nitroglycerin affords no relief. Patients with coronary thrombosis as a rule are either restless or in shock.

Pneumonia, pericarditis, pulmonary embolism, and certain types of medication such as digitalis poisoning may at times give rise to electrocardiographic changes resembling those of coronary thrombosis, but the question seldom arises as to their differentiation.

Etiology

In my practice I have been able to separate two groups of patients developing coronary thrombosis. The first is an older age group of 50 or over in whom the major role is played by advanced arteriosclerosis. Here the coronary thrombosis, similar to a cere-

bral thrombosis, is part of the patient's general arteriosclerotic syndrome and carries with it a higher initial mortality and a greater incidence of serious impairment to the cardio-vascular system than in the second group.

The second or younger group is found in the age period of 30 to 50, with only a few in the thirties. This group is characterized by its high tension existence. We do not know why blood should clot within an artery and especially within a vessel in the most active organ in the body. We can theorize as to the coagulability of the blood itself or of actual injury to the intima of the vessel with cardiac overstrain; or there is the thought of extreme acceleration of the blood stream through a vessel narrowed by disease or spasm liberating thrombokinase⁵ or even a balance of forces with need greater than supply—so great indeed that the part is injured without any narrowing of the vessel. Thrombosis often comes several hours after cessation of this physical effort, the period probably required for the thrombus to develop fully. The vascular system is prepared for the attack by chronic toxemias, by acute or chronic infections, or by focal infection. The attack is usually precipitated by a combination of very severe mental anxiety and an excessive and unusual physical effort. This accounts for its greater incidence in the male sex, whose vacation from office worries so often consists of a mountain climb or other severe physical exertion. It also accounts for its rarity among the very poor where degenerative heart conditions are prevalent but where there are apparently fewer sharp emotional or mental upheavals. An interesting commentary is the fact that I have found acute coronary thrombosis exceedingly rare during my service extending over a period of many years at the Denver General Hospital, whose wards abound with chronic heart cases. These chronic cases may have repeated small infarctions without much pain but with a final result of a gradually failing circulation from a fibrous myocarditis. Syphilis is considered an important factor in younger individuals. I have found no evidence of syphilis in any

of the cases I am reporting either here or in the scientific exhibit.

Treatment

The treatment of coronary thrombosis becomes self-evident when some thought is given to the pathology. The heart muscle requires an ample blood supply, and although, as Gross⁶ has shown, there is an anastomosis of end arteries, the anastomosis is not always sufficient to counteract a thrombus. When an infarct occurs, the collateral circulation is at times able to keep the part from dying. If not, there will be an area of softening with fibroblasts growing into the soft area and with a final absorption and hardening of the scar. During this process new vessels may have developed to aid recovery. These areas of cicatrization have been found as long as seventeen and one-half years after the typical attack⁷ in an otherwise healthy heart and, as we are accumulating more and more statistics on the milder cases, we are finding that our ideas as to the longevity after an attack of coronary thrombosis are gradually being revised and the life expectancy is being lengthened.

The onset produces so much pain and shock that the primary treatment is directed toward their alleviation. Vomiting occasionally helps by unloading the stomach, and possibly by a reflex coronary dilatation through the sympathetic innervation. The relief following vomiting may be quite spectacular. A quarter to a half grain of morphin is given immediately and quarter grain doses repeated every fifteen to thirty minutes until the pain is relieved. I would refer you for the details of the treatment of coronary thrombosis to the most excellent paper read before this society by Dr. L. W. Bortree⁸ last year.

The patient must be kept at absolute rest for a prolonged period to allow complete cicatrization to take place. If this is not done, the area may bulge and form a hernia of the ventricle; or the heart may rupture at this soft area and the patient may die suddenly. After three to six weeks in bed in the average case, I allow the patient to get up gradually, using the pulse rate as an index. The rate should not be allowed to

go over 80 per minute at any time during convalescence. In the milder cases the tendency is to dismiss the case too lightly as after the first few days the patient often feels perfectly well. If permitted up too early, a permanent myocardial weakness may result. Thrombosis in a small vessel is inherently curable, and the vast majority recover.

In the mild cases the question arises as to whether to tell the patient about his true condition. In quite a few patients the statement that he has coronary thrombosis produces a nervousness which may become quite troublesome, but unless it is very grave I tell the patient his exact condition. As these cases are found to recover in greater and greater numbers the fear complex will diminish and in time all patients will thereby be benefited. Not to tell a patient the truth is a great injustice as he might persist with the causative factors and bring on repetitions.

In most mild cases the diagnosis will be challenged by the general well-being of the patient after the first few days and other diagnoses will be sought, such as coronary spasm. When a patient is once carefully instructed and the need for caution indicated, his recovery is hastened and he is spared from recurrences. Helpful also in the prevention of recurrences are the removal of all foci of infection, the stopping of tobacco in any form, keeping the patient on coronary dilators for a period of time, and insistence on his early and sufficient bed rest. It is desirable to keep a watchful eye over all the patients' activities for several years. Some patients refuse to abide by the limitations placed on their activities and thus serve as controls for the rest.

Report of Cases

The following histories and electrocardiograms are used to illustrate some of the problems in the diagnosis and treatment of these patients. I am taking the cases in the approximate order of their severity.

CASE 1

This illustrates a thrombosis in a large branch of the left coronary artery in an arteriosclerotic patient: A male, white, aged 55, was seen on the morning of September 4, 1932. He was in

evident shock, vomiting profusely, and complaining of indefinite substernal distress, as though everything were being drawn together. There were dyspnea and a cold clammy perspiration, but the patient did not admit angor mortis. An immediate hypodermic injection of one-half grain morphin gave partial relief. An electrocardiographic record was taken and patient removed to the hospital. Relief was continuous, and in two days he indicated his readiness and appeared well enough to resume his travels which had been interrupted by the attack. Clinically one could have interpreted the symptoms as those of acute indigestion. However by watching for coronary thrombosis there were observed a lowering of the blood pressure, a rise in temperature to 101.6, a white count of 15,700 on the second day, and a profound electrocardiographic change. The patient gave a history of having had a previous electrocardiogram in March, 1932, taken because of dizzy headaches and marked dyspnea on slight exertion. His blood pressure then was 206. At the time of the attack it was 186/120, next day 116/110, and twelve days later 126/90. He was later allowed to travel 1500 miles in a sleeper to his home. His reports have been good, except that when he overstrains, he has precordial pains and nocturnal dyspnea.

This case is one of severe hypertension in a chronic vascular sclerosis, especially of the coronary vessels, developing an acute thrombosis at a high altitude. The same accident could have occurred in a lower altitude if this patient had been subjected to an unusual physical or emotional strain, or the thrombosis might easily have been in one of the cerebral vessels.

The series of electrocardiograms in this case showed the practically normal picture in the first one, taken during the attack. One would have hesitated a good deal before pronouncing it that of acute coronary thrombosis. In two days however a tremendous change has occurred. First there had been complete inversion of the QRS waves in Lead 1, which means that the electrical axis had shifted to the right. Ordinarily this would indicate a preponderance of the right side of the heart. In this case I took it to mean a weakness of the left side of the heart due to the infarction of the left ventricle. I should not hesitate a moment to call this case one of coronary thrombosis on the change of electrical axis alone, but we also had here a high take-off cove-shaped inversion of the T waves in Lead 1. One would ordinarily not wait two days for a second electrocardiogram if the question of surgery were in mind. I have no doubt that enough change did occur in the first few hours to have been of

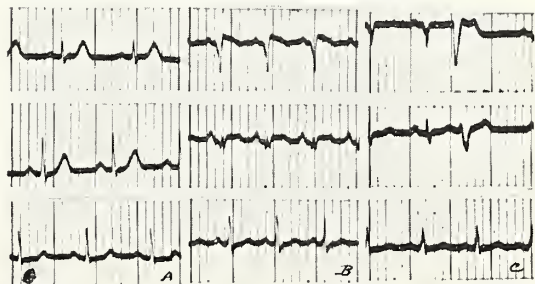


Fig. 1. Thrombosis of left coronary artery. A. during attack. B. Two days later. Note marked axis shift and coronary T wave in Lead 1. C. Fourteen weeks later.

value had a second electrocardiogram been taken. It was interesting to note how little further change occurred in the next fourteen weeks.

CASE 2

Thrombosis in a large branch of the right coronary artery, illustrating the end result in a case of the youthful type, occurred in a male, white, aged 55, who gave a history of having been put to bed for three months, fifteen years ago, because of myocarditis with symptoms of heart irregularity and pain, dyspnea on exertion, and pains in left shoulder. There was also abdominal "gas" and heartburn. This man had complained constantly during the fifteen years, had been treated at various clinics throughout the country, and was repeatedly assured that he was suffering from nervous indigestion. A chronic pyuria from an abscessed prostate may have had something to do with continuation of his symptoms of precordial distress. On October 28, 1931, while in the midst of a severe business stress, he walked several blocks hurriedly and suffered an acute pain lasting for three minutes in the precordium, left arm, and both shoulder blades. Upon resuming his walk the pain returned. There was no angor mortis. He was in shock with agonizing pain when he reached my office. The diagnosis was evident. An electrocardiogram was taken, he was given a quarter grain morphin and taken home in a taxi. He went through a stormy illness and it was two months before one felt safe as to his immediate future. Then he quickly recovered and felt fine for a year. He drove an automobile varying distances and toward the end had driven, against orders, as much as 150 miles a day. These exertions brought on another attack of coronary thrombosis from which he died in a week's time.

This is a case of repeated coronary thrombosis:

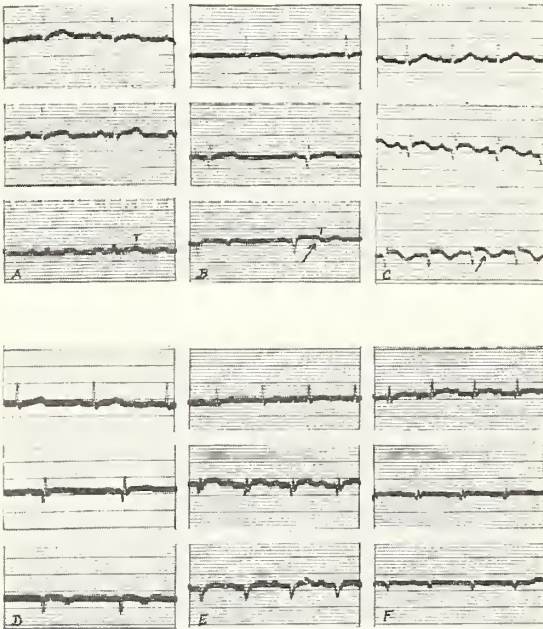


Fig. 2. Thrombosis of right coronary artery. A. During attack. B. Next day. Note inverted T 3. C. Two days later. Note fully developed Pardee T waves in Leads 2 and 3. D. One year later. Clinically well. E. At onset of fatal attack. One month after D. F. One day prior to death. Note small complexes.

one probable attack fifteen years ago, a definite attack one year prior to death, and a third and fatal attack. The last two attacks were traceable to a combination of extreme worry and unusual physical exertion. Chronic pyemic absorption probably paved the way through coronary artery damage.

In this patient the cardiac basis for the symptoms were so hidden and the gastric symptoms so much in the foreground that I had diagnosed him to be suffering from functional cardiospasm a year before his acute attack.

CASE 3

Alternating peptic ulcer and coronary thrombosis of severe grade are demonstrated in this case of a male, white, aged 63, who had gastric ulcer three times operated. He was a hard worker and player with little relaxation and much worry. For years following the last operation there were no pains or discomfort. In December, 1925, he was treated for an acute precordial pain with radiation into the left arm, extreme anxiety, and a sense of fixation. The pulse was slow and full. The blood pressure was 108/74; a slight precordial rub was noted at the time. In the next few months the patient reported that he had several attacks of pain in the cardiac area, during one of which he fainted. Two years later he suffered from hunger pains in the epigastrium radiating over the whole abdomen and relieved by drinking milk. X-ray showed a duodenum slightly deformed on the superior border. There was also some rigidity of the right upper quadrant. The stomach acidity was 20 total and 13 free hydrochloric. The diagnosis was probable duodenal ulcer.

On March 12, 1930, patient had a severe substernal pain radiating down the left arm. It was relieved only after three-quarters grain morphin had been given. Evidence of heart failure was noted in the passive congestion of the lungs and liver two days later, and a pericardial friction rub developed. This patient had a stormy illness but gradually recovered and is now doing full work. He told me that he went to a point over 11,000 feet high last summer to prove to himself that he never had heart trouble.

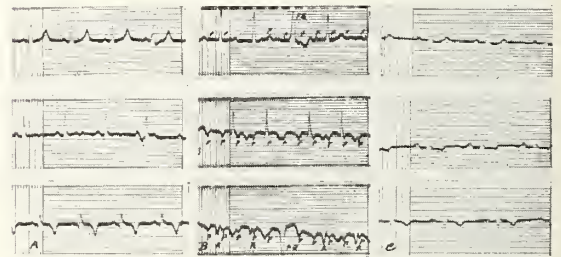


Fig. 3. Acute Coronary Thrombosis. A. During attack. Note inverted T 3. B. One month later. Auricular flutter. C. Ten weeks after attack. Normal rhythm. Clinical recovery.

CASE 4

This is a case of coronary thrombosis without immediate electrocardiographic changes at the time of illness but undergoing an axis shift later. A male, white, aged 70, had gastro-intestinal symptoms for years. His condition at one time was diagnosed as acute colitis. Later in 1919, a tender mass was found in the gall bladder region. In 1925 he had two attacks of "acute indigestion." He had suffered with urinary disturbance since 1922. A cardiovascular break was diagnosed in

July, 1926, based on low blood pressure, poor heart sounds, flabby heart shadow, and rapid pulse. At this time there was no evidence of gall bladder trouble. In 1927 he had phlebitis of the left leg. In May, 1931, he had an attack of very severe precordial pain accompanied by syncope. On the previous week he had been arguing a very important legal case. Late on the previous night he had walked up eight floors to his office. An electrocardiographic series showed no wandering during the attack. His blood pressure dropped from 110/70 to 90/60 and his temperature rose to 101 for a few days. Two consultants concurred in the diagnosis of coronary thrombosis which had to be made on clinical data alone. Six months later he had his bladder drained suprapubically to relieve severe prostatic pyuria and in March, 1932, a prostatectomy was done. The patient now feels very well with only occasional pains when over-exerting. He is in his office all day and takes the most trying of cases. Focal infection probably played a large part here. The absence of electrocardiographic changes at the time of thrombosis is noteworthy, especially as an electrocardiogram taken two years later showed a definite left axis shift. His blood pressure has not risen above 110 systolic since his attack and could not have occasioned the left axis shift.

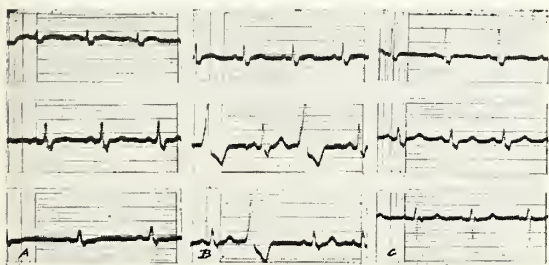


Fig. 4. Acute coronary thrombosis. A. During attack. Note isoelectric T waves and wide S 1 and 2. B. Seven months later. T 2 and 3 are normal. C. Two years later. Note left axis shift.

CASE 5

A coronary thrombosis proved by autopsy, showing no definite electrocardiographic abnormalities to the day of death, illustrates well the difficulties in differential diagnosis: A male, white, aged 45, on February 15, 1927, complained of pains in both arms of one year's duration, lower backache for a few days, constipation, and anorexia. One year prior he began to have a tingling sensation in both arms accompanied by pain in the joints or the right hand, but lately the pain was in the muscles of both hands, especially on moving them a good deal.

Examination revealed a blood pressure of 125/84, poor quality heart sounds, beaded retinal vessels and thickened radials. He was considered to be suffering from either lead poisoning, being a sheet metal worker, or focal infection from tonsils or prostate. His prostate was negative. He was not seen for two years during which time he continued to have pains in both arms. On April 27, 1929, he came with the complaint of substernal pressure of four days' duration, referred to both arms, especially the left. He took cathartics a good deal. He was tender over McBurney's point, but the question of angina pectoris was considered at the time. His pulse was 100, blood pressure

110/80. His heart had increased in size since the last examination. He again reported on May 15, 1929, that he had had two attacks of substernal pain, once while in bed and once after exertion. Examination revealed the apex beat outside the nipple line, and the heart sounds were soft. Pulse, 96 and regular; blood pressure, 118/74. Under the fluoroscope the heart was still further enlarged and of sluggish action. A diagnosis of coronary thrombosis was made, and he was ordered to bed. The patient sought other advice and was told that he was suffering from cholecystitis and not heart trouble, and an operation was advised. The electrocardiogram was then taken and considered negative. The patient still was not satisfied so he went to a large eastern clinic. On the second day there he suddenly died. An electrocardiogram taken on the day of his death read as follows: "A rate of 56, right ventricular preponderance and slurred QRS in all leads." Postmortem examination revealed "coronary sclerosis and thrombosis of the left descending branch, with hypertrophy of the heart." This case illustrates well the difficulties encountered in the differential diagnosis and the great need for caution in these cases. If he had taken to bed immediately, he might have survived the attack.

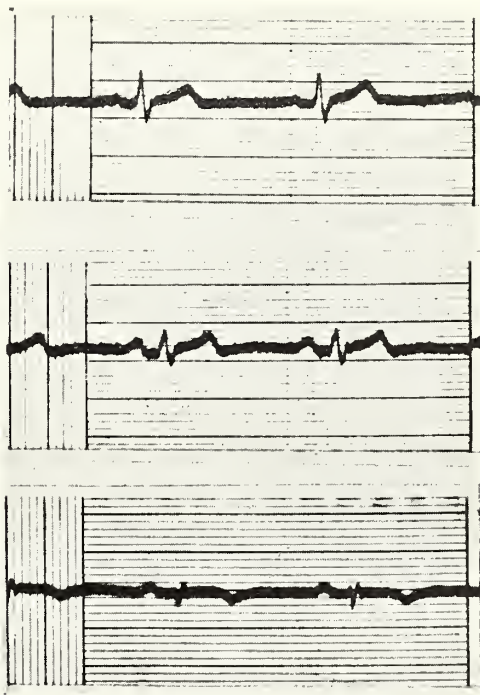


Fig. 5. Fatal thrombosis of the descending branch of the left coronary artery. One week before death.

CASE 6

Coronary thrombosis, of the milder type, in this case was precipitated by excessive smoking and unusual exertion. A male, white, aged 44, on August 11, 1932, was seen by me at his office. He had been in the mountains and on the previous day had ridden a good distance on horseback. That night he had a slight substernal pain which had quickly subsided. There was some pain the next morning which disappeared shortly. He worked hard all morning and about noon suffered

a severe epigastric pain. The abdomen was soft and not tender anywhere. Fluoroscopy showed a normal sized heart. Electrocardiograms showed progressive dip of the T wave in Leads 1 and 2, and then back to the original form. He ran a subfebrile temperature for a few days and his systolic pressure dropped from 120 to 90. He is in the most excellent physical condition at the present time and insists that his was a coronary spasm due to excessive smoking. He has been under no physical restraint for the past six months. The electrocardiograms are sufficiently characteristic to consider this a thrombosis in a small vessel.

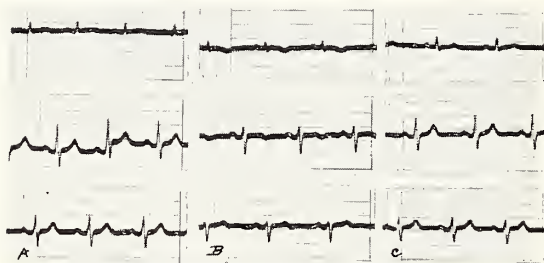


Fig. 6. Thrombosis of the left coronary artery. A. During attack. B. Two days later. Note inverted T 1 and 2. C. One year later. Note normal T 1 and 2.

CASE 7

Coronary thrombosis is occasionally seen in a very young individual: A male, white, aged 33, took sick the night of November 9, 1932, with epigastric pain, nausea, vomiting, and shock. He had been fishing and lifted one end of his car out of the mud the day before. This was his method of relaxation from severe nervous tension. He was given a quarter grain morphin and a stimulant. I saw him the next day and there was nothing in the physical examination to indicate any serious trouble. Patient was comfortable in bed and showed no acceleration of pulse or fever. His electrocardiogram took a wandering spell. He is back to his old routine and is constantly complaining although the electrocardiograms show improvement.

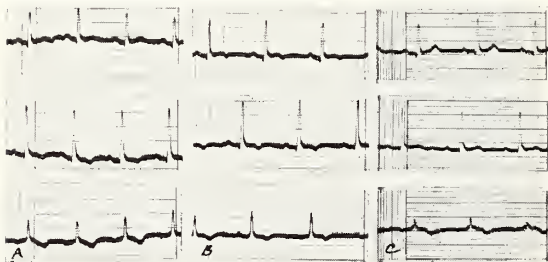


Fig. 7. Coronary thrombosis. A. Day following acute attack. B. Three days later. Note high take-off and inverted T 1. C. Ten weeks later. Upright T 1 and 2.

The following six cases are of the type classed as "myocardosis." The characteristic electrocardiograms tend to prove the coronary basis of the myocardosis in these cases.

CASE 8

A female, white, widow, aged 60, had had repeated attacks of indigestion and on July 17, 1926, had dizziness, nausea and vomiting. On February 4, 1927, she suffered "burning" in the chest, chills, nausea, and vomiting. A probable diagnosis was given as cholecystitis. On August 19, 1932, she became very dizzy and nauseated, experienced difficulty in swallowing, and suffered precordial distress. Her attack was brought on after a week of repeatedly climbing up and down stone steps of property she was having repaired. There was also much emotional perturbation due to construction difficulties. Teleroentgenogram revealed a large heart (index 57). Her temperature rose to 100.5 for a few days. Her electrocardiograms taken during and following this last attack show progressive inversion of T lead 1 and left axis shift. Rest promptly relieved all symptoms and she has felt fine all during the year.

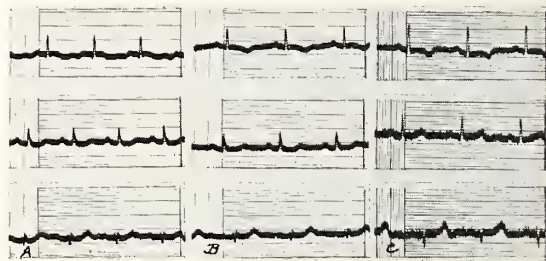


Fig. 8. Coronary thrombosis. A. One day after attack. B. Next day. Note inverting T 1. C. Three months later. Note also start of left axis shift.

CASE 9

A male, white, aged 56, had worked hard on an advertising campaign. He claims he worked twenty hours a day for several days. Ten days prior to his attack, while on the street car en route to his office, he was seized with a sudden pain across the chest, nausea and dizziness, pains in both arms and head covered with a cold sweat. He went directly home, rested, and felt well. He had repeated attacks of pain every morning on trying to go to work, and on the day of examination he vomited. An electrocardiographic series taken October 4, 1932, and subsequently show an inverted T 1 and slight change of R in lead 3. The tendency to left axis shift was not caused

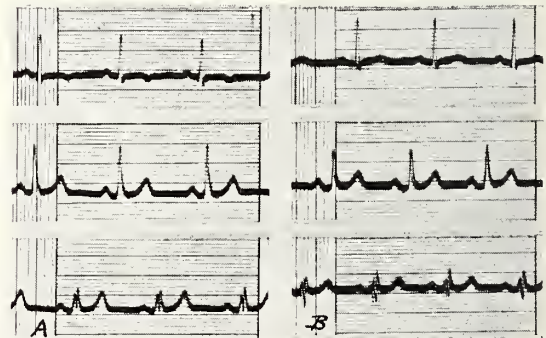


Fig. 9. Coronary thrombosis. A. After ten days of pain. Note inverted T 1. B. Six weeks later. Note upright T 1 and tendency to left axis shift.

by hypertension as his systolic pressure had not gone above 120. Moderately large doses of morphin and complete rest finally stopped painful attacks and he has had none for the past nine months. He has not yet returned to work.

CASE 10

A male, white, aged 57, was seen December 1, 1932. He complained of vague precordial distress referred to both arms and up right side of the neck. He had dyspnea on exertion. The electrocardiogram showed an inverted T lead 1, and prolonged bed rest was advised. He was not seen for eight months during which time he took good care of himself. A second electrocardiogram on August 31, 1933, showed enough change to warrant the opinion that he had had coronary difficulty eight months previously. He is a barber and works every day now. He does not overtax himself and has no discomforts of any kind.

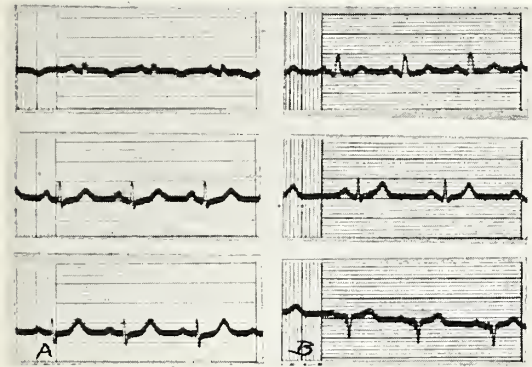


Fig. 10. Coronary thrombosis. A. Note inverted T 1. B. Nine months later. Note upright T 1 and left axis shift.

CASE 11

A male, white, aged 60, was seen on April 21, 1933, because of substernal oppression constant for twenty-four hours, so severe that it took one-half grain morphin to control it. He has had substernal oppression especially on exertion for several months. Two weeks prior he had abdominal pain thought to be due to constipation as there were no areas of tenderness or rigidity. He was rejected by an insurance company because of glycosuria and obesity. The electrocardiograms show change in axis shift which appeared in the course of two days and inversion of T lead 1 three months later. His temperature rose to 100 and white count to 17,000 on third day. His blood pressure dropped from 140/90 to 120/90 and his pulse rose to over 100 and stayed there. One month later he saw a gastro-enterologist who found a non-filling gall bladder. In addition to the above, this patient has moderately severe pyorrhea.

The question arises: Is this entirely a cholecystitis syndrome; are the electrocardiographic changes too small and other signs too few for a diagnosis of coronary thrombosis; or if all his symptoms are coronary, is the gall bladder responsible for any of the pain?

I feel that we have enough evidence to consider his whole discomfort as cardiac. The cholecystitis undoubtedly acts as a focus of infection as does his pyorrhea. In addition the obesity favors both the diabetes and its underlying cause, arteriosclerosis. That he has coronary thrombosis is evidenced by his discomfort on exer-

tion and the episode on April 21, 1933, is definitely a thrombosis of a small vessel as seen in the distant heart sounds, progressive lowering of the blood pressure, increase in the heart rate, and the rise in temperature and leucocyte count.

Although he has not said so, I feel that the enterologist thinks I am all wrong in the cardiac diagnosis. This case illustrates the difficulties encountered in the minor cases. Should this patient indulge in full activities, there will undoubtedly be a recurrence and possibly of more serious import. This patient's nervous reactions are such that he will probably bring on another attack within a relatively short time.

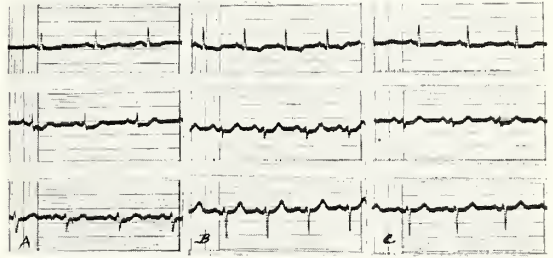


Fig. 11. Coronary thrombosis in chronic cholecystitis. A. Note isoelectric T 1 and low take-off T 2. B. Two days later. Note upright T 1.

CASE 12

A female, white, aged 51, was examined January 23, 1933, for precordial distress and palpitation. Examination showed a rather large heart with a systolic murmur at the aortic area. Her blood Wassermann and Kahn tests were negative. An electrocardiogram showed T 3 inversion which cleared up with rest, and again inverted with a second epigastric pain on May 16, 1933.

T 3 inversion without an accompanying T 2 inversion is not considered characteristic of coronary thrombosis. In this case, however, it changed during her attacks of acute pain and I consider the changes as a minor type of "wandering."

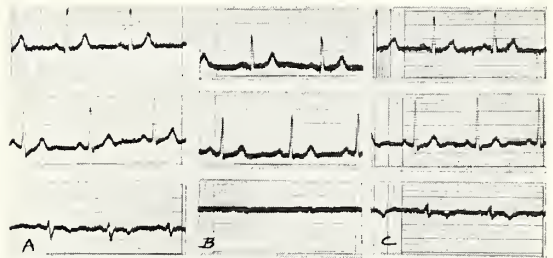


Fig. 12. Myocarditis. A. Note inverted T 3 during pain. B. Two months later. Improved. C. Four months later. T 3 again inverted.

CASE 13

A female, white, widow, aged 58, was seen on November 22, 1931, for relief of precordial pain referred down both arms and up to the neck. She had perspired all of the previous night and appeared pale. The attack followed a rapid climb of several flights of stairs. Her blood pressure was 180/100 and pulse 98. After a bed rest she felt better but could not continue to follow proper treatment because of her nervous and brooding nature. Her attacks of precordial pain always recurred after excessive exertion, which she in-

dulged in to avoid "nerves." After these attacks she would have a period of abdominal fullness after meals. She is gradually accustoming herself to her limitations and is improving. Her electrocardiograms show a definite left axis shift which may be due to her hypertension plus T wave changes indicative of coronary trouble.

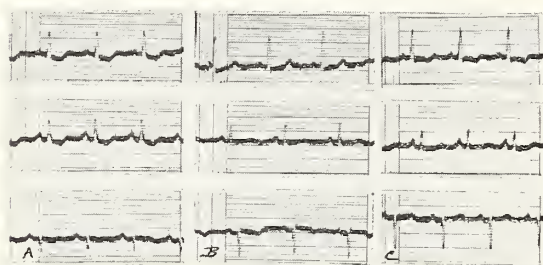


Fig. 13. Myocardosis. A. Note T 1 and T 2. B. Three months later. Note inverted T 3. C. Eighteen months later. Note diphasic T 1 and normal T 3. Note tall P 2 and fully developed axis shift.

The above six cases have all the clinical symptoms of "myocardosis" even when not specifically stated in the reports. They represent advanced arteriosclerosis with a gradual limiting of the cardiac efficiency due to areas of fibrosis replacing normal heart muscle following coronary failure.

The following three cases represent the beginning of the same syndrome, and are earlier than myocardosis. Arteriosclerosis is not demonstrable but is probably present to a slight degree. The attacks are precipitated by excessive physical, mental, or emotional strain.

CASE 14

A male, white, aged 37, had taken over a new department in his organization and this entailed hard work and much worry. For the past four or five weeks he had had disturbing pains in the left chest referred up the neck. He had never vomited but had been nauseated.

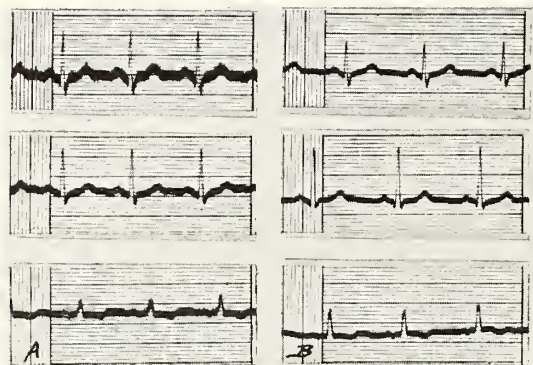


Fig. 14. A. Taken after three attacks of epigastric distress. B. Two weeks later. Note decreased R 1 and increased R 3.

Examination revealed a heart of normal size, shape, and action, no murmurs or accentuations. The first electrocardiogram could not be said characteristic of coronary thrombosis, but a second electrocardiogram taken after two weeks' rest showed R 3 notched and taller. An abscessed tooth was removed just prior to the second electrocardiogram.

CASE 15

A male, white, aged 36, had had several attacks of left sided "pleurisy." On the night of December 4, 1932, he had a severe spell of pain and vomiting, requiring a quarter grain of morphin for partial relief. A second hypodermic was given the next morning. There was a clear cut pericardial friction rub at the fourth interspace on the left side—not referred away from the heart area. This murmur disappeared the same evening. He had been working hard physically and was emotionally disturbed by the fear of infidelity on the part of his wife. An electrocardiogram showed a high take-off ST in leads 2 and 3, in itself insufficient to warrant a diagnosis of coronary thrombosis, which was proved by the evanescent friction rub, and by his complete recovery on rest therapy.

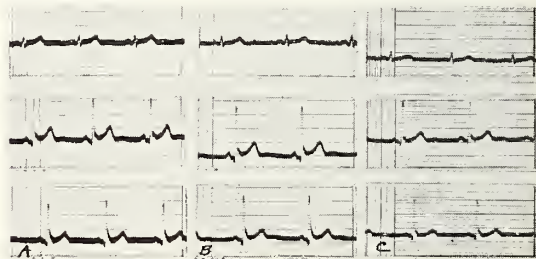


Fig. 15. Coronary thrombosis. A. One day after attack. Note high take-off ST in leads 2 and 3. B. Next day. No change. C. Four months later. Very little change.

CASE 16

A female, white, aged 31, was operated at the age of 24 for cholecystitis after repeated attacks. Appendix was removed at the same time, but her attacks continued. Her last attack, August 1, 1933, came after a hard day's work in the laundry room, a task to which she was unaccustomed, and was characterized by substernal and epigastric distress. She was pale and slightly dyspneic; no fever nor friction rub developed. An electrocardiogram was taken, which together with subsequent electrocardiograms made me feel that her trouble at present, if not in the past, was due to coronary disease.

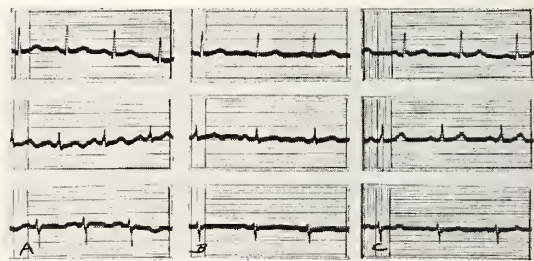


Fig. 16. A. Taken during a "gall duct" attack. Note inverted T 3. B. Next day. Note isoelectric T 3. C. One month later. Note upright T 3.

In these patients suffering minor attacks we cannot actually prove coronary thrombosis until after a large number have been observed and a number have died of other conditions and are carefully investigated postmortem for coronary scars. My personal opinion is that these cases represent the beginning coronary artery diseases and will eventually develop into the more severe types enumerated in the foregoing cases unless drastic measures are employed for their prevention.

Summary and Conclusions

This report attempts to delve into the borderline realm of coronary thrombosis by means of case histories and accompanying electrocardiograms.

The cases group themselves according to the severity of the underlying pathology. At one extreme are the aged arteriosclerotic patients with hardened thickened arteries whose coronaries may have practically no lumen remaining; while at the other are the young and middle aged men with no recognizable coronary trouble. In the former, coronary thrombosis may be precipitated by the slightest of causes while in the latter, an ever increasing group due to the high speed modern life, a combination of severe mental fatigue and emotional strain has to be coupled with an unusually excessive physical effort to produce similar results. Between these two extremes lie all gradations. Aiding in the tendency toward thrombosis are the chronic toxemias, with smoking as an example, general bodily infections, and focal infections, which cause arterial spasms or actual coronary damage. The result is the same in both cases: a need for blood greater than can be carried by the vessels. This sets up conditions, imperfectly understood, necessary for thrombus formation.

The physician can help first and foremost by proper diagnosis. Ordinarily the diagnosis is self-evident, but there is a group that gives a symptom complex indistinguishable from abdominal conditions, particularly cholecystitis. It is here that the electrocardiograph can be of utmost service. Usually the electrocardiographic diagnosis of coronary thrombosis rests upon a Pardee or cove-

shaped inversion of the T wave. I consider an unwarranted sudden or rapid shift of the electrical axis also a significant sign of coronary thrombosis. Most important of all, however, I find to be the sequentially changing or wandering electrocardiogram. There is the added feature that this can be of use in the milder cases which do not give as marked deviations as is necessary for the formation of the Pardee T wave. In the absence of certain enumerated conditions, wandering occurs only with actual occlusion of a vessel. Quite disconcerting is the occurrence of an attack of coronary thrombosis in a patient suffering from chronic cholecystitis. Here the patient will volunteer that this attack is different from his other attacks. In addition there are quite a number of cases entirely overlooked, and overlooked cases usually lead to permanent myocardial weakness.

Coronary thrombosis differs from a disease entity and is similar to an accidental injury in that it does not start small and gradually increase in intensity and amount of involvement, but actually starts with its maximum involvement first. If the patient does not immediately die or succumb to complications, the pathology gradually recedes. A minimal case then means a complete occlusion of a small vessel, while a severe case is a complete occlusion of a large vessel. Although we have made great strides in this direction, our prognosis will be more exact when we are able to determine the precise location and extent of the infarcted area.

Mild coronary thrombosis, in itself, is an inherently curable disease. It attacks the young much more frequently than is generally recognized, and it is prone to repeat itself. Properly safeguarding a susceptible individual should prevent repetitions, for the attacks are in the nature of preventable accidents. The best recoveries are made in younger patients exhibiting the least wandering of the electrocardiogram. The treatment should be complete physical and mental rest to cut down the load on the heart until new pathways are opened, existing ones enlarged, and the infarct either absorbed or completely cicatrized. Morphin in large and

adequate dosage, the treatment of accompanying shock, and prolonged bed rest are essential. Breaking the vicious physico-mental cycle and removing all foci of infection will help these patients to recover to an astonishing extent and to remain well.

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THE SURGICAL TREATMENT OF ADHESIVE PERICARDITIS*

WITH REPORT OF A CASE

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Statistics show that chronic adhesive pericarditis is found at autopsy in approximately 4 per cent of cases, yet extremely few of these individuals are given the benefit of surgical relief—despite the fact that the results obtained following operation, in the few cases upon which surgery has been attempted, have been for the most part very gratifying. Wiell in 1895 and Delorme in 1898, first suggested the advisability of dividing intrapericardial adhesions, a procedure subsequently performed for the first time by Rehn in 1913. Brauer in 1902 advised resection of the ribs overlying the heart for the relief of chronic pericarditis, and during the same year Peterson, at Brauer's instigation, performed the initial operation of this nature. Cardiolysis, however, received no recognition in this country until 1913 when Summers reported his first case. In 1917 the same author, upon reporting a second case, was unable to find any other reference to similar cases in our literature. A third case, however, had been previously reported by Dowd in 1913, the result of which was neither encouraging or discouraging according to the author. As recently as 1924, Marvin and Harvey were able to collect only five cases reported in America and added a sixth case of their own. Al-

though the more recent literature cites an increased number of operative cases, yet it is true that this type of surgery has not been accorded the proper trial in the United States.

From a surgical viewpoint, chronic adhesive pericarditis is most conveniently divided into two main types, the surgical treatment in each instance differing markedly. First, there is the type of pericarditis characterized by adhesions between the pericardium and the surrounding mediastinal and chest wall structures, but showing few if any alterations within the pericardial sac. Second, there is the type in which the outstanding finding is a thickened and contracted pericardium, with or without intrapericardial adhesions. From the foregoing statement we are not to assume that we are dealing with two distinct disease entities; in reality the pathological findings represent different stages of the same process, and the surgical procedures recommended for the relief of the condition were designed with this end in view. However, for the sake of convenience, the two arbitrary types of pericarditis are discussed separately, fully realizing that both types may occasionally occur in one individual.

Mediastino-pericarditis

The pathology observed in this first type of chronic pericarditis consists mainly of extrapericardial adhesions, or adhesions uniting the pericardium to one or more of

*Read before the Sixty-third Annual Session of the Colorado State Medical Society at Colorado Springs, September 15, 1933. The authors have a list of thirty-eight references which they will gladly supply upon request.

the surrounding structures. Ellsworth Smith describes four kinds of adhesions, as follows: (1) chondropericardial or fixation to the costal cartilages, sternum, and ribs in front; (2) pleuro-pericardial or fixation to the lungs laterally; (3) mediastino-pericardial or fixation of the posterior surface, with limitation of motion of the auricles; and (4) phreno-pericardial or fixation to the diaphragm. In mediastino-pericarditis, therefore, the work of the ventricle is increased due to these adhesions which impede systole, in contradistinction to interference with diastole which, as will be subsequently described, is the principal effect in the second or callous type of pericarditis.

The symptomatology and physical findings in mediastino-pericarditis should be readily distinguished in spite of the fact that a large proportion of the cases are not diagnosed antemortem. These patients frequently present themselves with a history of repeated infections, rheumatism, or endocarditis, although only about 50 per cent of the cases show cardiac valvular disease. Inasmuch as the burden of the work is placed on the ventricles, we ordinarily find a markedly enlarged heart with forceful, diffuse apex impulses. Since fixation of the pericardium to the neighboring structures is present, other signs must necessarily be observed, chief of which are: systolic retraction of the periapical interspaces, Broadbent's sign, immobility of the apex, diastolic shock, and pulsus paradoxicus (Kussmaul's sign). In these cases, fluoroscopic examination is helpful, particularly when tugging of the left diaphragm with systole is observed (Ellsworth Smith sign). The lack of mobility of the heart may also be readily demonstrated by fluoroscopy. The failure of the normal shift of the electrical axis in the electrocardiogram furnishes additional evidence of fixation of the heart by adhesions. Of the various signs, the systolic retraction is probably the most characteristic.

Surgical relief in this syndrome may be anticipated in a goodly percentage of cases by a Brauer cardiolysis. The term cardiolysis is not used here in the strict sense of the word because the object of this procedure

is not to free adhesions, but to render them harmless, or quoting from Bickham, the object of the Brauer cardiolysis is "to excise the osteocartilaginous portion of the chest overlying the adherent aspect of the heart—thus substituting a soft, elastic, yielding wall which would comfortably follow the cardiac movements, and further thus allow the heart to fall back into the thoracic cavity, thereby relaxing whatever other lateral and posterior adhesions which exist."

Many names have been suggested for this procedure described by Brauer, a few of which may be enumerated as follows: boning of the precordial chest wall (Summers), mobilization of the heart for cardiosymphysis (Bickham), cardioschisis (Matas), and thoracolysis praecardia (Kocher). The last mentioned term seems to most adequately describe the operative procedure which consists, in most instances, of a subperiosteal resection of approximately three or four inches of the left third, fourth and fifth ribs and costal cartilages. In those cases having more extensive involvement it frequently is necessary to include resection of the sixth rib, and it is occasionally advisable to remove the left half of the sternum in order to obtain sufficient mobility of the heart and pericardium. To pre-



Fig. 1. Pre-operative teleroentgenogram of the chest showing marked enlargement of the heart.

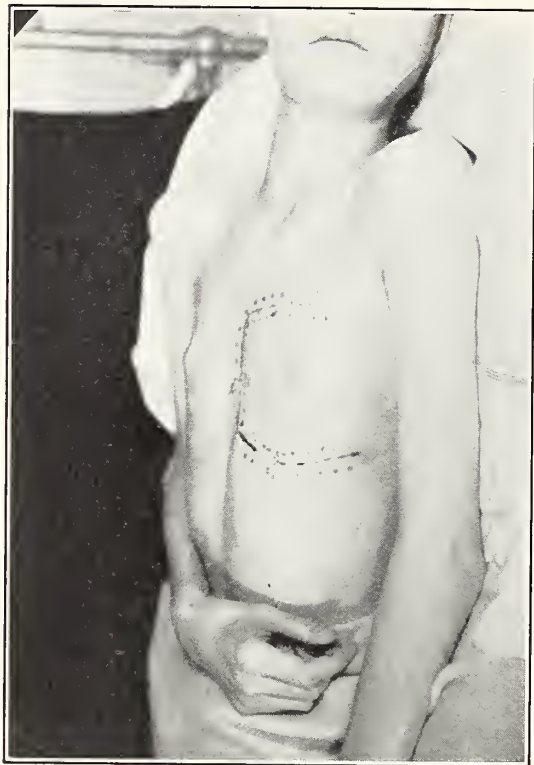


Fig. 2. Photograph taken seven days after operation to illustrate the site and the extent of the incision.

vent the regeneration of bone and cartilage, the greater portion of the periosteum and perichondrium should be excised after removal of the ribs. Some authors particularly emphasize this point in the technic and insist upon a complete removal of the periosteum, in spite of the fact that in so doing the pleural cavity may readily be accidentally opened. However, at the present time it is the consensus of opinion that a too radical removal is not warranted or necessary. The excision of all save the posterior shell of periosteum will suffice for all practical purposes. Head has been able experimentally to prevent rib regeneration by the use of Zenker's fluid, and Trout reports excellent results with its use in preventing regeneration after thoracoplastic procedures. The use of this fluid would undoubtedly be of value in this procedure.

An excellent and timely suggestion is offered by Trout as a further adjunct to the thoracotomy; namely, the avulsion of the left phrenic nerve. That dense adhesions between the pericardium and left diaphragm

are extremely common in these cases is an established fact, therefore the rationale of phrenic exeresis is obvious. Cole reports a case of adhesive pericarditis in which a preliminary phrenicectomy was done, following which the symptomatic relief was so marked that subsequent cardiolysis became unnecessary.

The Brauer operation is quickly performed, is simple of execution, and is attended with a comparatively low operative mortality when we consider that we are dealing with patients upon whom any type of surgery would be hazardous. The results are for the most part gratifying and occasionally brilliant. In the majority of individuals suffering from mediastino-pericarditis carefully selected for operation, we may safely prognosticate a return to a moderately active and gainful life in exchange for an existence of semi-invalidism. Failures following cardiolysis have been reported, but only too frequently it is found upon careful analysis that the case was not one suitable for surgery. Brauer originally postulated the three following requisites for the success of his operation: (1) the presence of diastolic shock, (2) systolic retraction at the apex, and (3) ability of the heart muscle to compensate. The last postulate is of the utmost importance in these cases, for Beck and Cox have demonstrated experimentally that following cardiolysis the positive atmospheric air exerts a deleterious effect upon the heart. This effect, described by the authors as "pneumocardiac tamponade," may be overcome by placing postoperative cases in a negative pressure chamber when available.

It is extremely difficult to determine the actual number of cases upon which this type of operation has been performed, because there is, in all probability, some repetition in series of cases reported by different authors, but very likely there have been considerably more than 100 instances reported in the literature. In 1928, Lenormant and d'Aubigne reviewed sixty-three cases having an operative mortality of 6.3 per cent. Thirty-two cases were definitely improved and had been followed for periods varying from five

months to five years. Torraca, in 1929, reported eighty-four cases, and stated that of this series seventy-two were more or less markedly improved. Thirty-three were still well after one year, fifteen were well after two years, seven after three years, and five after four years. Four patients died soon after operation and twenty-six died after varying intervals due to recurrence or intercurrent disease. In a review of 107 cases by Smith and Liggett in 1928, the result was described as improved in 84 per cent. Failure to improve occurred in 16 per cent. The operative mortality was not tabulated, but 20.6 per cent of the patients died within three months, and 8.4 per cent died within twelve months, or a total mortality of 29 per cent during the first year.

From a study of these and other statistics, we may conclude that the immediate operative mortality following a Brauer type of cardiolysis is approximately 6 per cent. Furthermore, a satisfactory result followed the operation in from 80 to 85 per cent of the cases reported.

Callous Pericarditis

The type of chronic pericarditis characterized by a thickened pericardium may be recognized by various names, such as *concretio pericardii*, *concretio cordis*, *synechia pericardii*, and *symphysis cardiaca*, but the term *callous pericarditis* suggested by Schmieden seems to most adequately describe the condition.

The outstanding pathological finding, as previously stated, is the thickened pericardial sac, which in certain instances may attain a thickness of a centimeter or more. There are usually, although not always, dense adhesions between the epicardium and the pericardium, and in certain instances this fibrosis may extend for a considerable depth into the heart muscle itself. Not infrequently patches of calcification may be present, usually the result of a tuberculous invasion.

As the pericardium becomes increasingly dense, and as the fibrosis extends, the consequence is a progressive contraction of the thickened pericardium resulting in a "choking" of the heart itself, and in this manner obstructing the filling of the heart during

diastole. Bearing this sequence of events in mind, we find that patients suffering from callous pericarditis exhibit small hearts with feeble pulsations and marked venous stasis. The increased venous pressure is probably the most reliable sign in these cases. Polyserositis or the Pick syndrome may frequently be observed in these individuals, for Beck and Griswold have shown by animal experimentation that the essential factor in the production of Pick's disease is contraction of the pericardium. Fluoroscopic examination furnishes a further aid in diagnosis. Due to the constricting pericardium, two observations are possible fluoroscopically: first, diminution of amplitude of the cardiac movement, and second, a failure to distinguish the aortic beat from that of the ventricle, the latter finding being almost pathognomonic.

The surgical treatment of callous pericarditis must obviously be directed toward the removal of the offending pericardium. The simple division of intrapericardial adhesions, as advocated by Delorme in 1902, has not gained favor due to the tendency for the reformation of adhesions. The operation of choice, therefore, is pericardiectomy, more

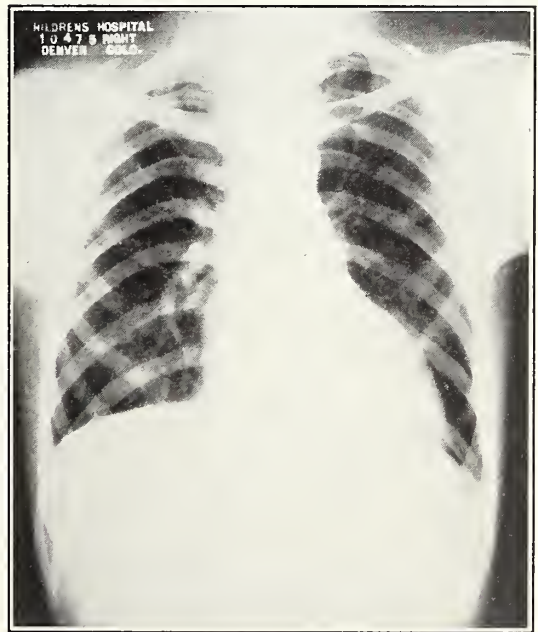


Fig. 3. Teleroentgenogram taken three months after operation, showing the diminution in the size of the heart shadow, particularly the left ventricle.

frequently called decortication of the heart, a procedure very ably described by Schmieden, Beck, and Churchill. Certain authors, notably Barnard and Keno, felt that the pericardium is essential to health in the prevention of dilatation of the heart, but the experimental work of Beck and Moore has shown conclusively that the pericardium is not essential to life. Furthermore, a theoretical objection to decortication has been suggested on the basis that there is danger of new scar formation in place of the excised pericardium.

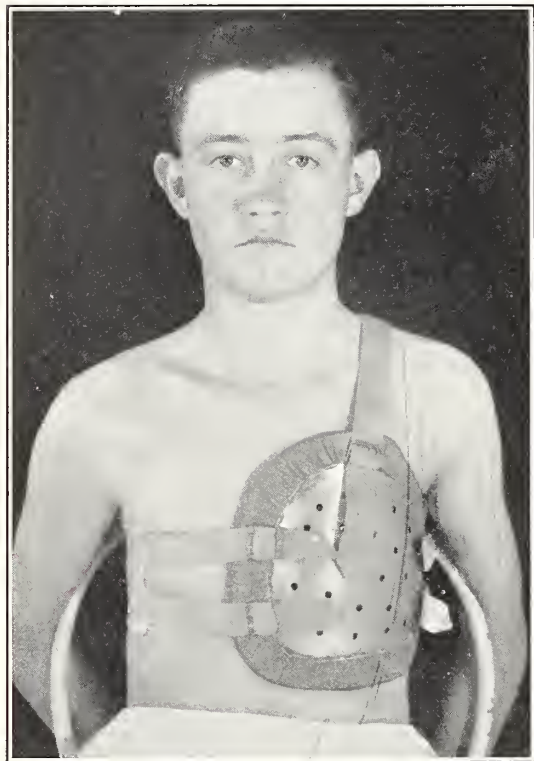


Fig. 4. Photograph showing the size and position of the metal protective plate.

This complication has not occurred to date, and Schmieden reports one case six years postoperatively without evidence of adhesions, and a second case seven months after operation in whom there is no difficulty in spite of the fact that the wound suppurated.

In selecting these cases for decortication it must be borne in mind that freeing the heart muscle by removal of the pericardium adds considerable work to the heart which is already damaged, so it is essential that the heart have a satisfactory reserve power.

Obviously the operation of pericardiectomy is one of considerable more magnitude than that of the cardiomyolysis of Brauer, and for this reason certain authors advise a division of the operation into two or more stages, the initial stage consisting of resection of the ribs, costal cartilages, and part of the sternum as described by Brauer. Other approaches, such as the transpleural route (Schmieden), the bilateral exposure (Beck), and the midline thoraco-abdominal incision (Duval-Barasty) are recommended, but the former procedure, which affords an ample exposure of the pericardium, is the one most generally in use. The decortication, which is accomplished by painstaking blunt and sharp dissection, should be sufficiently complete to liberate both ventricles and to free adhesions surrounding the great vessels. Schmieden has called attention to the importance of decorticating the left ventricle first, because if the right is freed before the left, the result is a dilatation of this ventricle with tricuspid insufficiency.

In spite of the risk and technical difficulties of decortication, the results following pericardiectomy have been sufficiently satisfactory to warrant the further use of surgery in selected cases. Trout in 1931 was able to collect forty-three such cases in a review of the literature. Of these, twenty-four, or 55 per cent, did well. One was unimproved. There were eight operative deaths and six died in less than one month. In nine cases the operation was not completed.

REPORT OF A CASE*

History: (Case No. 10759, Children's Hospital). A white boy of 16 entered the hospital on September 23, 1932, complaining of dyspnea and fatigue. The family history was unimportant, two brothers and one sister being alive and well without evidence of heart disease. In the past the patient had had mumps at the age of four, measles and whooping cough at six, and frequent attacks of tonsillitis; a tonsillectomy had been performed at the age of ten.

The present illness dates back to an attack of rheumatic fever which occurred at the age of one and one-half years, but which was apparently not complicated by cardiac valvular disease. His general health remained good until 1928 when, at the age of 12, he suffered a second attack of rheumatic fever with involvement of several joints and lasting for approximately two months.

*Case referred by courtesy of Dr. Chesmore Eastlake.

A third and similar illness made its appearance the following year (1929). At this time he remained in bed for a period of three months, the articular symptoms being accompanied by cardiac dilatation and edema of the lower extremities.

After a prolonged convalescence, this patient remained essentially well, except for some dyspnea and palpitation on moderate exertion, until the first week in September of 1932 when he noticed weakness, fatigue, and soreness in the region of his shoulders. A few days later he complained of headaches and intense precordial pain with inability to lie on his left side. There was also a slight but constant elevation of the temperature and night sweats. These symptoms persisted up to the time of admission to the hospital.

Examination: The patient was a fairly well developed and nourished boy of 16 who was obviously acutely ill, with moderate dyspnea and slight cyanosis. The temperature was 100.6 F. and the pulse rate, 104.

Examination of the head and sinuses was not remarkable. The pupils were equal and regular. The tongue was slightly coated. The pharynx was injected, but the tonsils had been well removed. There was bilateral enlargement of the anterior cervical glands.

The thorax was asymmetrical with prominence of the left side. The lungs were resonant on percussion. The breath sounds were vesicular throughout. A few moist rales could be heard over the base of both lower lobes posteriorly.

The heart was enlarged downward and to the left, the point of maximum intensity being in the sixth interspace, 2 cm. outside the midclavicular line. The apex impulse was diffuse and heaving in character and a diastolic shock could be palpated. Typical periapical systolic retraction of the interspaces was present. The apex remained in a fixed position on turning the patient from side to side. Broadbent's sign was not visible. The heart sounds were rapid, but regular, and of fair quality. Loud, blowing, to and fro murmurs could be heard at the apex and base of the heart. A pericardial friction rub was elicited which disappeared within a few days after admission to the hospital. The pulse was of the water-hammer type with capillary pulsations visible in the nail beds. A "pistol-shot" sound was readily heard over the femoral vessels. The blood pressure was 140 systolic and 0 diastolic.

The abdomen was level and symmetrical. The liver was palpable three fingers breadth below the costal margin. There was no tenderness, mass, or free fluid present. The extremities showed no edema. The reflexes were present and equal.

The urine was essentially negative. The blood cells were normal except for a moderate leucocytosis. The Wassermann reaction was negative. Blood cultures failed to show a growth.

An x-ray picture of the chest (Fig. 1) showed marked enlargement of the heart and slight passive congestion of the lungs. An electrocardiogram showed no deviation from normal except for the fact that there was no shift of the electrical axis with change in position of the patient.

Course: The patient was digitalized. The throat infection disappeared within a week, and the temperature returned to normal at the end of ten days. The blood pressure ranged between 130 and 148 systolic, and 0 and 30 diastolic. During the following seven weeks (between October 3, 1932, and November 21, 1932), there was very little change in the patient's condition, the pre-

cordial pain and dyspnea persisting in spite of the prolonged rest.

Operation (November 21, 1932): The operation was carried out under ether anesthesia. The usual horseshoe shaped incision was made (Fig. 2). The muscles were divided down to the ribs, and the skin muscle flap retracted laterally. The fourth, fifth, and sixth costal cartilages and approximately two inches of the corresponding ribs were resected. The anterior portion of the perichondrium and periosteum was excised, but a more thorough removal was not attempted, because after resection of the ribs the cardiac motions became violent, and the pulse became rapid, thready and irregular. A small Penrose drain was inserted and the wound edges were approximated with interrupted sutures of silkworm gut.

Postoperative Course: There was a moderately severe postoperative reaction during the first forty-eight hours, the pulse ranging between 130 and 140 beats per minute, but reaching normal on the ninth day.

On December 13, three weeks after operation, examination showed that the apex shifted with change in position of the patient. An x-ray picture taken on this date was reported as follows: "Heart shadow still large. Apparently slightly less enlargement of the right side of the heart, but slightly more enlargement of the left ventricle."

The patient's condition steadily improved with further rest. The precordial pain which was so distressing before operation, had entirely disappeared. He was permitted in a wheel chair on December 27, and by the middle of January (1933) was able to walk without becoming dyspneic. An electrocardiographic tracing showed left ventricular preponderance and a shift of the electrical axis with changes in position.

On February 13, three months after operation, another six-foot x-ray was made to compare with the one taken two months previously (Fig. 3). The interpretation was as follows: "The heart is markedly diminished in size. This applies to all diameters, and especially to the left ventricle."

Since that time the patient has continued to improve, has grown four inches in height and has gained thirty-five pounds in weight. His activities are only slightly limited, he attends school regularly, and he is able to enjoy the milder forms of exercise without distress. An aluminum protective guard (Fig. 4) was devised which the patient wears in order to prevent possible trauma to the heart.

The outcome in this case, following a Brauer cardiolytic, is considered satisfactory from two points of view. From the standpoint of the patient, we find that he has been completely relieved of the dyspnea and precordial pain which were the two most troublesome admitting complaints. In addition, his limits of activity have been materially broadened.

Clinically, the cardiac dilatation is very appreciably reduced, there is a shift of the apex on change in position, the pulse rate is slower, and the diastolic pressure has increased from 0 to 50.

Conclusions

1. The benefits resulting from surgery in cases of chronic adhesive pericarditis have not been fully appreciated in this country up to the present time.

2. Surgically the disease is arbitrarily divided into two main types (mediastino-pericarditis and callous pericarditis), depending chiefly upon whether the adhesions are extra- or intra-pericardial, the surgical procedures recommended in each instance differing only in magnitude.

3. The clinical syndrome in each type is strikingly dissimilar. In mediastino-pericarditis the pathological process produces an interference with systole resulting in an enlarged heart and other associated findings, while in callous pericarditis the diastolic phase is embarrassed, giving rise to a small heart with feeble pulsations.

4. The procedure of choice in mediastino-pericarditis is the cardiomyolysis of Brauer; in callous pericarditis decortication of the heart, performed in one or more stages, is the only suitable operation. The use of Zenker's solution to prevent rib regeneration is of undoubted value as an adjunct to these operations.

5. A review of the literature furnishes us with proofs that the results following surgery are sufficiently satisfactory to warrant further surgery in carefully selected cases.

6. A successful case of mediastino-pericarditis treated by Brauer's cardiomyolysis is reported in detail.

ABSTRACT OF DISCUSSION

C. T. Burnett, M.D. (Denver): The impression perhaps obtained from this discussion on coronary thrombosis might be that attacks are dependent upon physical or emotional strain. It is generally recognized that this is not necessarily a factor. As a matter of fact, a very considerable number of these cases occur under ordinary occupational conditions or at rest, some of them in sleep.

I wish to sound a note of warning to those who are especially interested in this. I am guilty of having spoken on this subject three years ago before this Society, regarding the inclusion of too many electrocardiographic variations as indicative, necessarily, of coronary thrombosis. When we can get enough cases checked at autopsy to prove that these daily variations are indicative of coronary thrombosis, at that time will we be justified in making the statement that these changes other than the change spoken of as a Pardee curve or the cove change, indicates coronary thrombosis.

At least in children, rather marked changes in the form of the electrocardiogram occur independ-

ent of any known pathological condition. How far into adult life that occurs I don't know.

In connection with Dr. Katzman's discussion of the acute abdomen as a diagnostic stumbling block in this condition, coronary thrombosis, I want to stress the importance of diarrhea. He mentioned nausea and vomiting, which does frequently occur. Diarrhea very frequently occurs, and at least two instances I have seen it occur at the initial onset and it was so marked that it certainly would suggest an abdominal condition rather than a cardiac condition, but in both of these cases the ultimate outcome proved that this was the case.

W. B. Yegge, M.D. (Denver): Referring to Dr. Katzman's paper, the important thing in the diagnosis is the differentiation of the upper abdominal conditions from coronary thrombosis. I think we all have missed a great many coronary thromboses, simply by not having an electrocardiograph taken.

In some gall bladder conditions it is very confusing, but gall bladder conditions usually give pain referred to the right shoulder blade. We can also have gall bladder conditions without pain thus referred. In these cases it is very hard to differentiate without the electrocardiograph. In some cases there is the burning sensation down the sternum which can occur in both instances and again our electrocardiogram differentiates this condition.

Dr. Foster's paper brings out the fact that there is something that can be done for adhesive pericarditis. In selected cases, surgery will undoubtedly prolong life.

Dr. Katzman (Closing): The question of emotional strain as a factor was brought up by Dr. Burnett. I feel and I have attempted to make this paper show that the emotional factor, the mental factor, and the acute physical factor are real elements necessary in the younger aged group for the production of coronary thrombosis. This is really going a step ahead of the recognized type of cases, but I am trying to bring forth the idea that the high tension modern life may produce coronary thrombosis of milder degree in young individuals. These individuals may be saved from later trouble if we know that the attack has occurred.

On the question of an attack coming on at night or at rest, coronary thrombosis often comes on several hours or even a day after its exciting cause. We do not know the exact reason for a thrombus to form so late, but thrombosis is inherently a much slower process than embolism.

Each individual doctor must do his part in spreading a better understanding of what should constitute the limits of medical charity. Medical charity has created one of our major sociological problems. This problem has developed to enormous proportions due to excess sentimentalism on the part of the public when times are good. The public in its zeal to show its kindness to those who found it difficult to pay, created a mass thought that all things needed for life and happiness would be given by someone to those in need even though that need was not definitely apparent.—The Bulletin of the Los Angeles County Medical Association.

BOOK REVIEWS

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md. With the collaboration of Francis Gilman Blake, M.D., Yale University, New Haven, Conn.; Vernon C. David, M.D., Rush Medical College, Chicago, Ill.; Dean Lewis, M.D., Johns Hopkins Hospital, Baltimore, Md.; John W. McNee, M.D., University College Hospital, London, Eng.; John H. Musser, M.D., Tulane University, New Orleans, La.; Walter W. Palmer, M.D., Columbia University, New York, N. Y.; Pasteur Vallery-Radot, M.D., University of Paris, Paris, France; Arthur L. Bloomfield, M.D., Stanford University, San Francisco, Calif.; Campbell P. Howard, M.D., McGill University, Montreal, Canada; W. McKim Marriott, M.D., Washington University, St. Louis, Mo.; George Richards Minot, M.D., Harvard University, Boston, Mass.; Charles C. Norris, M.D., University of Pennsylvania, Philadelphia, Pa.; E. Rehn, M.D., University of Freiburg, Germany; Russell M. Wilder, M.D., The Mayo Foundation, Rochester, Minn. Volume I. Forty-fourth series, 1934. Philadelphia, Montreal, London: J. B. Lippincott Company. 320 pages.

The medical section of this volume is composed of seven monographs. Two of these, Hepatic Insufficiency and Jaundice, concern the liver, and are detailed in their comments on hepatic function tests and several associated blood and urine tests. There are three articles on the heart: Enlargement of the Heart, So-called Functional Heart Disease, and Recent Advances in Treatment of Cardiac and Renal Edema. The article, Management of Old Age Conditions, is a comprehensive but terse discussion of the subject. The Role of the Vegetative Nervous System in Gastrointestinal Disease, A Clinical Study of Vagotonia and Sympathicotonia, is the title of a technical but interesting and instructive presentation of the subject.

The surgical section of this volume contains three monographs. Wounds of the Heart by Bigger and Porter of Richmond, Virginia, is an optimistic report of seven penetrating wounds of the heart with the treatment of each. There is a brief report of an unusual case of Ureterocele of the Supernumerary Ureter—Bilateral Huge Pyonephroses and Megaloureters with Recovery. From the clinic of Urban Maes, M.D., New Orleans, come three case reports: Melanoma of the Male Breast; Differential Diagnosis of Gangrene—case reports and comments on use of Thorotrast in arteriography; and the third, An Early Case of Paget's Disease, diagnosed astutely on an apparently trivial symptom.

The section on pediatrics consists of a symposium on one subject—lead poisoning. From the Introductory Remarks by H. B. Cushing, M.D., of Montreal, through the Treatment of Lead Poisoning, the subjects are handled concisely, simply, yet so inclusively as to be of value to any pediatrician.

Recent Progress in Medicine by A. Cantarow,

M.D., of Philadelphia, and *Advances in Abdominal Surgery During 1932* by D. C. Balfour, M.D., and James R. Watson, M.D., of Rochester, Minn., include many brief comments on the relative values of the recent advances.

Thus, the volume as a whole presents a series of subjects of wide interest and satisfying completeness in readily available form.

A. M. WOLFE.

Starling's Principles of Human Physiology. Sixth Edition. Edited and revised by C. Lovatt Evans, D.Sc., F.R.C.P., F.R.C. Lea & Febiger Co.: Philadelphia. 1933.

The present edition of this well-known text on physiology contains much new material, and many of the chapters have been rewritten. The subject matter is divided into five books under which the following are considered:

Book One—The general principles of the physiology of living matter.

Book Two—Physiology of muscle and nerve.

Book Three—Physiology of the central nervous system and special senses.

Book Four—Nutrition.

Book Five—Reproduction.

Book Three is revised by H. Hartridge, M.A., M.D., Sc.D., F.R.S.

The section on the physiology of the endocrine organs seems to be the most inadequately considered of any section in the book.

A new feature in this edition is the inclusion of a number of general references in the foot notes. This greatly adds to the usefulness of the book.

This thoroughgoing revision makes Starling the most up-to-date text book of physiology known to the reviewer. It can be recommended to both practitioners and students who wish to keep abreast of the recent, well-established developments in physiology.

R. W. WHITEHEAD.

The Library of the Medical Society is in need of the following journals, and publishes this list hoping that members may be able to supply them.

American Journal of Anatomy, 1933 to date.

American Journal of Surgery, any numbers, July 1933 especially.

American Journal of Tropical Medicine, any numbers.

Annals of Surgery, September, 1932.

British Journal of Experimental Pathology, any numbers.

British Journal of Radiology, any numbers.

British Journal of Urology, any numbers.

Journal of Clinical Investigation, Vol. 1, No. 2, 6; Vol. 2; Vol. 3, No. 1, 3-6; Vols. 4, 5, 6; Vol. 9, Nos. 2-6; Vol. 10 to date.

Medical Journal and Record, all numbers since January, 1932.

Quarterly Bulletin of the Health Organization of the League of Nations. Any numbers.

DON'T MISS IT

Miss what? Why, the Sixty-fourth Annual Session, Sept. 20, 21, and 22, in Colorado Springs. Plan now. Read the program in the August issue of Colorado Medicine. You will be pleasantly surprised.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

The A. M. A. Takes Its Stand On New "Medical Plans"

SUCH phrases as "free choice of physician," "family physician relationship," and so on, have filled the literature of medical economics for years. Until the Annual Session of the American Medical Association in Cleveland last month, however, these terms and their proper place in new forms of medical practice had not found definite pronouncement by the governing body of the national organization.

Many resolutions, some of them half-baked schemes promoted by individuals or foundations not concerned with the welfare of physicians or the quality of medical care, found their way to the House of Delegates of the A.M.A. Several were concerned with setting up some sort of national "plan." So the House created a special reference committee for this session to consider all such suggestions. Several adopted resolutions will be discussed in later issues of Colorado Medicine. But the reference committee itself, with the aid of the Judicial Council, brought forth a set of ten principles to guide any state or county society which wishes to experiment with a new form of medical practice for the relief of the much-distressed "low income classes."

The very contradictions of the many private plans and suggestions themselves formed proof enough to a listener at sessions of the House that no one "national plan" can apply and still uphold the basic principles of medical organization—advancement of the "art and science of medicine and the betterment of public health." What may work in an industrial city like Cleveland or Pittsburgh can not work in the corn fields of Iowa. What might suffice for a health and recreational center like Colorado Springs would be laughable in New York or San Francisco.

The ten principles presented below, though, are to apply to any plan, be it municipal, county, or state. Within the limits of these principles, the American Medical Association gives free rein to its constituent and component bodies to experiment or carry out plans applicable to their peculiar localities. But beyond these principles the A.M.A. will not move; it will not budge an inch.

Officers of our State Society request that this set of principles be read before the next meeting of every constituent county and district society. The principles will then speak for themselves:

1. All features of medical service in any meth-

od of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

2. No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.

3. Patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give services.

4. The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

5. All medical phases of all institutions involved in the medical service should be under the professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

6. However the cost of medical service may be distributed, the immediate cost should be borne by the patient able to pay at the time the service is rendered.

7. Medical service must have no connection with any cash benefits.

8. Any form of medical service should include within its scope all qualified physicians of the locality covered by its operation who wish to give service under the conditions established.

9. Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

10. There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

WARNING!

A valuable Spencer microscope was stolen from the office of Dr. E. L. Foster of Arvada late in June. The doctor asks his colleagues to be on the watch for anyone who might try to sell the instrument to another physician.

MEDICAL SOCIETIES

ARKANSAS VALLEY MEDICAL ASSOCIATION

The midsummer meeting of the Arkansas Valley Medical Association will be held at Canon City Saturday, July 14. Scientific sessions will be held as usual during the morning and afternoon, with a luncheon and appropriate evening entertainment.

The scientific program will include the following:

"Difficult Infant Feeding Cases," by J. W. Ames, M.D., Denver.

"The Treatment of Eczemas, Infantile and Adult," by George P. Lingenfelter, M.D., Denver.

"Sterility, Its Diagnosis and Treatment," by William P. McCrossin, Jr., M.D., Colorado Springs.

"The Treatment of Nephritis," by Fred M. Heller, M.D., Pueblo.

Among the entertainment features will be a trap shoot and a golf match. The hospital of the Colorado State Penitentiary will be open for inspection by the visiting guests. Detailed programs will be mailed to members of the Association, and, on request, to other members of the Colorado State Medical Society, all of whom will be welcomed at the sessions.

KON WYATT,
Secretary.

COLORADO OPHTHALMOLOGICAL SOCIETY

March 17, 1934

DR. G. O. CARY, PRESIDING

Dr. W. M. Bane presented a case of typical albinism.

Dr. J. C. Long presented two cases of congenital absence of the puncta in a boy and his sister, and also a case of bilateral coloboma of the iris and choroid.

Dr. M. E. Marcove presented a case of congenital anomaly of the optic papillae, and a case of congenital paralysis of the external rectus corrected by the O'Connor transplantation operation.

Dr. S. Goldhammer presented a case of diffuse chorioretinitis or an atypical retinitis pigmentosa.

Dr. J. L. Swigert presented a case of iridocyclitis and neuroretinitis, luetic, resistant to treatment.

Dr. R. W. Danielson presented a case of scleritis, tenonitis. Dr. Danielson also presented a table of clinical comparisons of various local anesthetics.

Dr. W. M. Bane reported that a case of retinoblastoma presented at the December meeting had been operated. He showed the pathological specimens.

GEORGE H. STINE,
Recorder.

BOULDER COUNTY

The regular monthly meeting of the Boulder County Medical Society was held at the Boulderado Hotel, Boulder, Thursday, June 14. The meeting was preceded by a dinner. Doctor Severance Burrage of Denver presented a paper on "Microbial Fingerprints, Their Relation to Respiratory Infections," and Dr. B. B. Jaffa of Denver talked on "The Immunization Campaign in Denver."

M. L. JOHNSON,
Secretary.

CROWLEY COUNTY

Dr. W. S. Bartholomew of Manzanola was the principal speaker at the regular meeting of the Crowley County Medical Society held at Dr. Desmond's office in Ordway, June 13. Dr. Bartholomew presented an interesting paper on "Venereal Diseases."

J. A. HIPP,
Secretary.

* * *

FREMONT COUNTY

Some interesting films were shown at the May meeting of the Fremont County Medical Society held at the Municipal Building, Canon City. "Appendectomy for Acute, Gangrenous Appendicitis—McBurney-Weir Incision," was the subject of one of the films and "Low Forceps Delivery" was the subject of the second film. Dr. A. D. Waroshill presented a paper on "Oxygen Therapy" at this meeting.

A. BEE,
Secretary.

* * *

LARIMER COUNTY

The Larimer County Medical Society and the Women's Auxiliary to the Medical Society met jointly June 6, at the College Cafeteria in Fort Collins. Doctor George L. Pattee of Denver was the guest speaker and read a paper on "The Treatment of Maxillary Sinusitis."

L. D. DICKEY,
Secretary.

* * *

NORTHEAST COLORADO

The doctors of Holyoke were hosts to the Northeast Colorado Society at their regular meeting held June 14. A fried chicken dinner was served at the Methodist Church at 6:00 o'clock. Dr. H. C. Hill was the principal speaker at the scientific meeting which followed.

E. P. HUMMEL,
Secretary.

William C. Finnoff

One of our most valued and widely known members succumbed, on June 10, to heart disease at the height of a brilliant career. Since his graduation from the University of Colorado School of Medicine in 1915, Dr. Finnoff practiced in Denver and through his writing, teaching, and research in ophthalmology became nationally and internationally known. The outstanding work was probably that in conjunction with Dr. Hideyo Noguchi on trachoma. Valuable research was also done on cphthalmic tuberculosis.

As a captain in the World War, Dr. Finnoff performed a valuable service correcting facial disfigurements of soldiers in the Royal London Ophthalmic Hospital. The death of his first wife occurred during his training at Camp Funston.

Dr. Finnoff's health began to fail two years ago at which time he resigned as Associate Professor of Ophthalmology at the local medical school. He had since been offered the chair in ophthalmology in Northwestern, Chicago, and Pennsylvania Universities.

Unable to attend a class reunion banquet at our State University on June 9, a classmate accepted for Dr. Finnoff the Norlin medal for his distinguished achievements in pathology of the eye.

The Colorado State Medical Society extends to his survivors its sincerest condolence: his wife, Dr. Virginia Van Meter; two sons, William C. Finnoff, Jr. and S. D. Finnoff; a daughter, Barbara Finnoff, and a brother, Louis H. Finnoff.

WOMAN'S AUXILIARY

The dates Sept. 20 to 22 are to be of great interest to the doctors and their wives when the Colorado State Medical Society convenes at Colorado Springs.

The Committee in charge has made changes in the date and in the program, which they hope will benefit all, and yield a much larger attendance for the entire three days.

The program has not been completed at this time, but we are assured that every day has been carefully planned not only for the welfare of our progressive and scientifically minded husbands, but for the members of the Woman's Auxiliary.

Mrs. Robert E. Fitzgerald of Wauwatosa, Wis., our National Publicity and Press Chairman, was in Denver Sunday, June 24. She has been in Colorado Springs the past week attending the Gamma Phi Beta national convention, in which she holds an office. Dr. and Mrs. G. P. Lingenfelter and Dr. and Mrs. D. A. Doty had the pleasure of entertaining Mrs. Fitzgerald during the afternoon. She has a very charming personality and is an interesting conversationalist. We enjoyed the visit of our distinguished guest. The Woman's Auxiliary is fortunate in having Mrs. Fitzgerald as its National Publicity Chairman again the coming year.

PUEBLO COUNTY AUXILIARY

Mrs. W. T. H. Baker has been elected president of the Woman's Auxiliary of the Pueblo County Medical Society. Other officers are Mrs. R. C. Robe, vice president; Mrs. John B. Farley, recording secretary; Mrs. C. E. Earnest, corresponding secretary; Mrs. Harvey S. Rusk, treasurer, and Mrs. E. H. Steinhardt, auditor.

WELD COUNTY AUXILIARY

Mrs. John W. Fuqua has been elected president of the Woman's Auxiliary of the Weld County Medical Society. Other officers of the society are Mrs. E. W. Knowles, vice president; Mrs. T. E. Atkinson, secretary and treasurer; Mrs. A. C. McCain, auditor.

The standing Committees for the ensuing year are represented as follows: Membership Committee, Mrs. N. A. Madler; Entertainment Committee, Mrs. W. P. Allen; Program Committee, Mrs. T. C. Wilmoth; Courtesy Committee, Mrs. J. W. Lehan; Hygeia Committee, Mrs. J. A. Weaver, Sr.; Public Relations Committee, Mrs. E. W. Knowles; Publicity and Press Committee, Mrs. J. A. Weaver, Jr.

WATCH FOR THE PROGRAM!

Next month's Colorado Medicine will carry the program of the State Meeting in Colorado Springs.

Long ago the doctors abandoned the idea that bleeding the patient would cure all ailments, and sooner or later the same light may dawn on the tax-levying agencies.—Arkansas Gazette.

In these days of aggressive self assertion, when the stress of competition is so keen and the desire to make the most of oneself so universal, it may seem a little old fashioned to preach the necessity of humility; but I insist, for its own sake and for the sake of what it brings, that due humility should take the place of honor in the list. For its own sake, since with it comes not only a reverence for truth, but also a proper estimation of the difficulties encountered in our search for it. More perhaps than any other professional man, the doctor has a curious, shall I say, morbid? sensitiveness to (what he regards) personal error. In a way this is right; but it is too often accompanied by a cocksureness of opinion, which, if encouraged, leads him to so lively a conceit that the mere suggestion of a mistake under any circumstances is regarded as a reflection on his honor, a reflection equally resented, whether of lay or of professional origin. Start out with the conviction that absolute truth is hard to reach in matters relating to our fellow creatures, healthy or diseased, that slips in observation are inevitable, even with the best trained faculties, that errors in judgment must occur in the practice of an art which consists largely in balancing possibilities—start, I say, with this attitude of mind and mistakes will be acknowledged and regretted; but instead of a slow process of self deception, with ever increasing inability to recognize truth, you will draw from your errors the very lessons which will enable you to avoid their repetition.—Osler.

There is no time like the present, while we are emerging from the economic depression, to plan for the future of medicine. One thing is certain. "big business" methods, which are devoid of human personal relationship, are not acceptable to the public nor to the medical profession. Medical care directed by the medical profession, with a minimum amount of meddling by governmental, business, and sociologic interests, will be more effective in the interest of the public.—Bronx County Medical Journal.

COLORADO STATE MEDICAL SOCIETY

Officers, 1933-1934

President: Gerald B. Webb, Colorado Springs.

President-elect: N. A. Madler, Greeley.

Vice Presidents: First, Frank E. Rogers, Denver; Second, A. G. Taylor, Grand Junction; Third, C. E. Sidwell, Longmont; Fourth, Ward C. Fenton, Rocky Ford.

Constitutional Secretary: John S. Bouslog, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 537 Republic Building, Denver. Telephone, KEystone 0870.

Delegates to American Medical Association: Senior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs.

Councillors:	Term Expires
District No. 1 F. W. Lockwood, Fort Morgan	1936
District No. 2 Ella A. Mead, Greeley	1936
District No. 3 George P. Lingenfelter, Denver	1936
District No. 4 C. T. Knuckey, Lamar	1935
District No. 5 George D. Andrews, Walsenburg	1935
District No. 6 C. Rex Fuller, Salida	1935
District No. 7 A. L. Burnett, Durango	1934
District No. 8 Lee Best, Delta	1934
District No. 9 W. W. Crook, Glenwood Springs, Chairman	1934

Standing Committees, 1933-1934

Credentials: John S. Bouslog, Denver, Chairman; Harold T. Low, Pueblo; John A. Sevier, Colorado Springs.

Scientific Work: Kenneth D. A. Allen, Denver, Chairman; Burgett Woodcock, Greeley; G. Burton Gilbert, Colorado Springs.

Arrangements: John B. Hartwell, Colorado Springs, Chairman; William A. Campbell, Jr., Colorado Springs; Carl S. Gydesen, Colorado Springs.

Public Policy: Charles O. Giese, Colorado Springs, Chairman; Walter W. King, Denver, Vice Chairman; H. R. McKeen, Denver; Gerrit Heusinkveld, Denver; Harvey W. Snyder, Denver; James J. Waring, Denver; Lanning E. Likes, Lamar; W. W. Harmer, Greeley; Charles H. Platz, Fort Collins; Gerald B. Webb, Colorado Springs, ex-officio; John S. Bouslog, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. S. Bluemel, Denver (1934), Chairman; William H. Crisp, Denver (1935); C. F. Kemper, Denver (1936).

Medical Defense: T. D. Cunningham, Denver (1934), Chairman; Casper F. Hegner, Denver (1935); Frank B. Stephenson, Denver (1936).

Medical Education and Hospitals: J. A. Sevier, Colorado Springs, Chairman; Royal H. Finney, Pueblo; Thad P. Sears, Denver.

Library and Medical Literature: George A. Boyd, Colorado Springs, Chairman; E. D. Downing, Denver; F. W. Kenney, Denver.

Cooperation with Allied Professions: M. O. Shivers, Colorado Springs, Chairman; H. S. Finney, Denver; John R. Evans, Denver.

Medical Economics: Philip Hillkowitz, Denver, Chairman; Claude E. Cooper, Denver; F. Julian Maier, Denver.

Necrology: George M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; C. W. Streamer, Pueblo.

Special Committees, 1933-1934

Postgraduate Clinics: C. E. Harris, Woodmen, Chairman; Maurice H. Rees, Denver; Nolie Mumey, Denver; O. M. Gilbert, Boulder; Fred M. Heller, Pueblo.

Military Affairs: George P. Lingenfelter, Denver, Chairman; John W. Amesse, Denver; Robert M. Fulwider, Fort Lyon; Louis V. Sams, Denver; W. P. McCrossin, Colorado Springs.

Advisory to the School of Medicine: Frank B. Stephenson, Denver, Chairman; John S. Bouslog, Denver; T. D. Cunningham, Denver; C. E. Sidwell, Longmont; Charles O. Giese, Colorado Springs.

Cancer Education: Lyman W. Mason, Denver (1936), Chairman; Charles T. Ryder, Colorado Springs (1936); John B. Hartwell, Colorado Springs (1936); C. W. Maynard, Pueblo (1935); W. W. Wasson, Denver (1935); H. S. Finney, Denver (1935); William H. Halley, Denver (1934); K. D. A. Allen, Denver (1934); W. W. Haggart, Denver (1934).

Nursing Education: Frank E. Rogers, Denver, Chairman; H. A. Black, Pueblo; C. T. Knuckey, Lamar.

Public Health: E. N. Chapman, Colorado Springs, Chairman; John W. Amesse, Denver; Margaret Long, Denver.

Workmen's Compensation Affairs: Peter O. Hanford, Colorado Springs, Chairman; A. S. Cecchini, Denver; J. B. Farley, Pueblo.

Constituent Societies

Meeting Dates; Secretaries

Adams County—Quarterly, date set by president and secretary; secretary, J. C. Stucki, Brighton.

Arapahoe County—Last Monday of each month; secretary, L. S. Anderson, Englewood.

Boulder County—Second Thursday of each month; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, C. Rex Fuller, Salida.

Clear Creek Valley—Second Tuesday of each quarter; secretary, O. R. Sunderland, Edgewater.

Crowley County—Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, O. S. Philpott, Denver.

El Paso County—Second Wednesday of each month; secretary, Carl S. Gydesen, Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs.

Huerfano County—Third Thursday of each month; secretary, J. R. Fowler, Tioga.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, W. L. McBride, Seibert.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, L. D. Dickey, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—Third Tuesday of each month; secretary, F. J. McDonough, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each quarter; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Friday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, Scott A. Gale, Lamar.

Pueblo County—First and Third Tuesday of each month; secretary, J. L. Rosenbloom, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, O. B. Rensch, Durango.

San Luis Valley—Fifteenth of each month; secretary, James R. Hurley, Alamosa.

Washington and Yuma Counties—First Tuesday of each quarter; secretary, L. D. Buchanan, Wray.

Weld County—First Monday of each month; secretary, J. A. Weaver, Jr., Greeley.

WYOMING SECTION

President, F. L. Beck, Cheyenne

Vice President, J. L. Wicks, Evanston

President-elect, H. L. Harvey, Casper

Secretary, Earl Whedon, Sheridan

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A.: G. P. Johnston, Cheyenne; Alternates: E. L. Jewell, Shoshoni; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne J. H. Goodnough, Rock Springs

F. C. Shafer, Douglas

Medical Defense Committee: Earl Whedon, Sheridan R. H. Sanders, Rock Springs E. L. Jewell, Shoshoni

EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

SPECIAL MEETING OF THE HOUSE OF DELEGATES

May 18, 1934

Casper, Wyoming

A special meeting of the House of Delegates of the Wyoming State Medical Society was called to order by President F. L. Beck in Room 107 of the Henning Hotel at Casper at 9 a. m., May 18, 1934.

The Secretary read the President's call for the meeting. Roll call of Delegates showed the following present: Albany County, Dr. E. L. Sederlin; Converse County, Dr. F. C. Shaffer; Carbon County, Dr. J. D. Wilson; Fremont County, no delegate; Hot Springs, no delegate; Laramie County, Drs. Geo. P. Johnson, W. K. Mylar, F. L. Beck, and W. R. Day; Natrona County, Dr. H. R. Lathrop and Dr. T. J. Riach; Northwestern Medical Society, Dr. J. R. A. Whitlock, Dr. O. B. C. Kinney, with Dr. J. D. Lewellen and H. T. Harris as Alternates; Sheridan County, Dr. W. A. Steffen, Dr. William Schunk, Dr. Earl Whedon; Sweetwater County, Dr. J. H. Goodnough; Uinta County, no delegate.

Dr. Beck stated that inasmuch as this was a specially called meeting of the House of Delegates called on a petition signed by twenty-three members, in his opinion some one of the petitioners should state the object of the meeting. He called upon Dr. Whedon, who replied that he was not the spokesman for those who had signed the petition and only spoke for himself. He stated that there had been a great many letters, telegrams and phone calls to his office protesting any action by any special committee which attempted in any way to fix fees or make any

contracts with the FERA for medical and surgical services at any other than the usual fees charged in the different counties of the state. He held that only by action of the House of Delegates did any committee have any authority to make contracts binding the members of the Wyoming State Medical Society. He also read several letters of protest by members of the State Medical Society.

Dr. H. R. Lathrop of Casper entered a rigorous protest to a 50 per cent contract on the part of the President and a special unauthorized committee. President F. L. Beck then replied and stated that the membership of the Wyoming State Medical Society were not bound by the actions of himself and his special committee. He affirmed that the special committee had done all in its power to secure as good terms as possible with State Administrator Metz.

A very free discussion followed the President's speech, in which nearly all the Delegates expressed their opinions and the opinions of the members of the Society they represented.

Dr. J. H. Goodnough of Sweetwater County moved that a vote of confidence be given to both President F. L. Beck and Secretary Whedon for their services in this connection. This motion was duly seconded and carried.

Dr. J. D. Wilson of Carbon County moved that the President and his special committee be asked to secure increased fees if possible. Dr. W. K. Mylar seconded the motion and after further discussion the motion carried. Thereupon the House of Delegates adjourned.

DR. EARL WHEDON,

Secretary.

Wyoming State Medical Society

▼ Thirty-First Annual Meeting ▼

CASPER, WYO.

JULY 16-17, 1934

Registration Headquarters, Gladstone Hotel

Medical Society Meetings, Elks Club

PROGRAM

SUNDAY, JULY 15, 1934

7:30 p. m.—Smoker, Gladstone Hotel, Entertainment by Natrona County Medical Society.

* * *

MONDAY, JULY 16, 1934

6:00- 8:00—Golf Tournament, Country Club.

8:00-10:00—Medical Clinic, County Hospital, Dr. J. C. Kamp in charge.

10:00—Call to Order.....*Dr. F. L. Beck*
President Wyoming State Medical Society, Cheyenne.

Presidential Address
.....*Dr. F. L. Beck, Cheyenne*

"Modern Cardiac Therapy".....
.....*Dr. Adolph Sachs, Omaha*

12:00—Luncheon.

AFTERNOON SESSION

1:30—Scientific Meeting.

1. "Chronic Arthritis"
.....*Dr. J. C. Camp, Casper*

2:00—Meeting of the House of Delegates.
(Adjournment.)

2. "Bag of Tricks"
.....*Dr. C. W. Jeffery, Rawlins*

3. "Some Phases of Medical Economics"
.....*Dr. Paul S. Read, Worland*

4. Adjourned Meeting of the House of Delegates.

7:00—Annual Banquet.

* * *

TUESDAY, JULY 17, 1934

MORNING SESSION

6:30—Final of Golf Tournament.

8:00—Clinic, Surgical at the County Hospital....
.....*Dr. Allan McLellan in Charge*

10:00—"What Activities Do You Want the State Board of Health to Plan and Carry Out in the Future?".....
.....*Dr. W. H. Hassed, State Health Officer*

"Emergency Brain Surgery".....
.....*Dr. Jay J. Keegan, Omaha*

"Some Common Causes of Blindness".....
.....*Dr. Hugo L. Lucic, Cheyenne*

"Early Diagnosis of Ectopic Pregnancy"....
.....*Dr. Douglas W. Macomber, Denver*

AFTERNOON SESSION

1:30—Scientific Meeting: The Wood Tick and its Relations to Mankind.

1. "Colorado Tick Fever".....
.....*Dr. Gordon E. Davis, U. S. Public Health Service, Hamilton, Montana*

2. "Personal Experiences with Colorado Tick Fever".....
.....*Dr. F. C. Schaffer, Douglas*

3. "Rocky Mountain Spotted Fever, With Special Attention to Treatment".....
.....*Dr. E. L. Jewell, Hollywood, California*

4. "The Spencer-Parker Vaccine and Its Use in Sheridan County".....
.....*Dr. Earl Whedon, Sheridan*

5. Round Table Discussion of Above Papers.
Special Scientific Exhibit—Wax Models of Pathological Specimens.....
.....*Dr. Nolie Mumey, Denver*

COMMITTEES

Golf*Charles Bettinger, Casper*
Entertainment Committee.....*Dr. George Smith, Casper; Dr. M. D. Vest, Casper; Dr. George James, Casper.*

GOLF PRIZE

In 1929 the State Society offered a Golf Cup. The rules of the Society provide that to retain this cup it must be won for three years. Please notify CHARLES BETTINGER, Casper, Wyoming, of your intention to play so arrangements may be made.

PROGRAM

LADIES' AUXILIARY OF THE WYOMING STATE MEDICAL SOCIETY

SUNDAY, JULY 15, 1934

Sunday afternoon and evening—Meeting ladies at the Gladstone Hotel on their arrival.

MONDAY, JULY 16, 1934

Meeting and sightseeing trip as announced by local committee.

TUESDAY, JULY 17, 1934

Final meeting and party by local ladies.

STATE AUXILIARY OFFICERS

President.....*Mrs. E. L. Jewell, Shoshoni*
President-Elect.....*Mrs. Walter O. Gray, Worland*
Treasurer.....*Mrs. Herbert L. Harvey, Casper*
Secretary.....*Mrs. Edward S. Lauzer, Rock Springs*

For Hotel Reservations, write Dr. George Smith, Casper, Wyoming.

Play safe. Make your hotel reservations now as Casper is on one of the leading highways, and some tourist may get in before you.

NOTICE

The following amendment to the Constitution of the Wyoming State Medical Society was proposed at the Rock Springs meeting of the House of Delegates on July 19, 1932:

That Article Five (V), House of Delegates, be amended by adding the following words:—"(4) all Past Presidents, Past Secretaries and Past Treasurers of the Society shall hereafter be members of the House of Delegates and have the same rights as duly elected members of the House."

The above proposed amendment is published this second time so that the same may be acted upon by the House of Delegates at the meeting July 16 and 17.

DR. EARL WHEDON,
Secretary.



Corrected Programs for Casper Meeting

BEFORE this Journal reaches them, members of the Wyoming Society will have received programs of the Casper Meeting a second time. Through a printing error several important lines were omitted from the first copies, hence they were reprinted and remailed. The corrected program also appears in this issue of the Wyoming Section, and constitutes Wyoming's invitation to all Colorado State Medical Society members to join us at Casper on July 16 and 17. Come early, and join the smoker the evening of July 15.

It is unthinkable that any considerable number of administrative problems of a county society can be solved by the voluntary service of its members. The only effective solution is the employment of an executive secretary whose principal duty is to carry out the details of the plans of the society and its officers and committees . . . All the precedents support the proposal of an executive secretary for every county medical society.—Pittsburgh Medical Bulletin.

Will see you in Casper, July 16 and 17!

I wish there were another term to designate the wide field of medical practice which remains after the separation of surgery, midwifery and gynecology. Not itself a specialty, though it embraces half a dozen, its cultivators cannot be called specialists but bear without reproach the good old name physician, in contradistinction to general practitioners, surgeons, obstetricians and gynecologists. I have heard the fear expressed that in this country the sphere of the physician proper is becoming more and more restricted, and perhaps this is true, but I maintain (and I hope I can convince you) that the opportunities are still great and the laborers are scarcely sufficient to meet the demand.

At the outset, I would like to emphasize the fact that the student of internal medicine cannot be a specialist. The manifestations of almost any one of the important diseases in the course of a few years will box the compass of the specialties. Typhoid fever, for example, will not only go the rounds of those embraced in medicine proper but will carry its students far afield in morbid psychology and sometimes teach him, perhaps at the cost of the patient, a little surgery.—Osler.

"At the present time there seems to be a good deal of worry for fear that too many are entering the medical profession. We are a profession, not a trade, and should not introduce hurdles into our medical schools, to reduce the number of students, traps for the unwary, memory tests on subjects not always closely related to medicine or its application. The development of medical education should be based on improving the qualifications of the medical practitioner to meet more fully the responsibilities to the sick rather than having for its object the reduction of the number of physicians. Think of the enormous number of people who are depending on cults, untrained irregular practitioners, and patent medicines, who should have care by competent physicians and would have, if we were forgetful of self and overcome our personal likes and dislikes and stood together as we should."—William J. Mayo.

PROFITS AND TAXES

Many people are bewildered by the fact that while business has shown a decided improvement in the past eighteen months, security prices have remained at about the level of a year ago.

There is nothing inconsequent in this situation. Co-incident with the advent of a new administration came the idea that someone must be punished for all that had happened. Bankers and financial institutions were picked for the sacrifice. Consequently we went into a period of much talk—many accusations—few convictions—loss of confidence in all things financial—some real improvement in protective legislation—and the New Deal. The New Deal has given business the confidence that will carry prices upward. This is evidenced by increased earnings and the resumption or raising of many dividends.

Our next Congress should mark the turn-

ing point in legislative attitude. They must focus their attention on the Government debt which has been built up so easily in the past two years. Taxes alone can pay the interest on these debts—neither talk nor punishment will do it. Taxes come only from business profits. Only by stimulation of business and encouraging greater profits can the interest of our increasing public debt be paid, for taxes are levied on and paid from profits. No profits—no taxes.

The increased earnings and the increased dividend payments which we have already seen give evidence of improvement. To our mind they give the true answer to the question, "Has improvement really begun?" We further believe that security prices should in the relatively near future seek their proper levels and so reflect not only the improvement already shown, but also that to come.

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Mid-West Hospital Association Annual Meeting

THE Mid-West Hospital Association held its Eighth Annual Meeting in Tulsa, on May 25 and 26. The attendance was small, but an unusual amount of interest was manifested by those present. The papers and discussions were even better than those generally presented at such meetings.

Mr. Walter J. Grolton, Superintendent of City Hospital, St. Louis, Missouri, discussed the problems of Municipal Hospitals, and told how they were attempting to prevent patients from entering as charity cases who were not deserving of same. He also described his method of conducting a school for hospital employees.

Mr. Guy M. Hanner, Superintendent, Beth-El Hospital, Colorado Springs, Colorado, told of the benefits gained by the Colorado Springs hospitals from organizing a local hospital council. His discussion of ways and means of collecting accounts through the hospital council was especially interesting.

Mr. E. E. King, Superintendent, Missouri Baptist Hospital, St. Louis, Missouri, in discussing Hospital Ethics and Publicity, stated that the public should know what the hospitals have to offer them, and that before a hospital enters into a campaign of publicity it should have something to offer.

Dr. John Andrew, Longmont Hospital, Longmont, Colorado, pointed out that heavy losses are incurred yearly by hospitals through failure to collect from patients hurt in automobile accidents. He declared that the automobile is a social menace and that some form of compulsory insurance is necessary to protect the hospitals and the victims of irresponsible drivers. He stated that a public highway is government property, and that therefore the State should be held responsible for seeing that some form of com-

pensation or reimbursement is available to those injured in accidents on the highways.

Miss E. Muriel Anscombe, Superintendent, Jewish Hospital, St. Louis, Missouri, presented a paper on the Functions of a Properly Organized Social Service Department in a General Hospital. This paper was discussed by Mrs. Agnes Hamilton, City Supervisor, F.E.R.A., Tulsa, Oklahoma.

"It is impossible to lower rates any further, and still maintain standards of efficiency in hospitals," declared Mr. Louis C. Levy, Superintendent, Menorah Hospital, Kansas City, Missouri. He stated that hospitals must organize for their mutual benefit and protection against the chiseler, and advocated that in local communities uniform rates be adopted.

Mr. William S. McNary, Business Manager, University of Colorado School of Medicine and Hospitals, gave a very inspiring talk on "Loyalty." His paper will be published in this column at a later date.

The Rev. R. D. S. Putney, Superintendent, Saint Luke's Hospital, St. Louis, Missouri, advocated the building up of endowments for private hospitals if they wish to continue serving the public. He told in detail how he raised the endowment for his institution.

Mr. Paul Fesler, Superintendent, Wesley Memorial Hospital, Chicago, Illinois, spoke about the American Hospital Association's activities in Washington.

Mr. J. A. Dent, Business Manager, Bell Memorial Hospital, Kansas City, Missouri, gave a detailed account of how his institution obtains a high percentage of post mortems. This was a very valuable discussion because the Bell Memorial Hospital has one of the best records on autopsies among hospitals of the United States.

Miss Ruby Kysar, Chief Dietitian, Saint Luke's Hospital, Denver, Colorado, gave a

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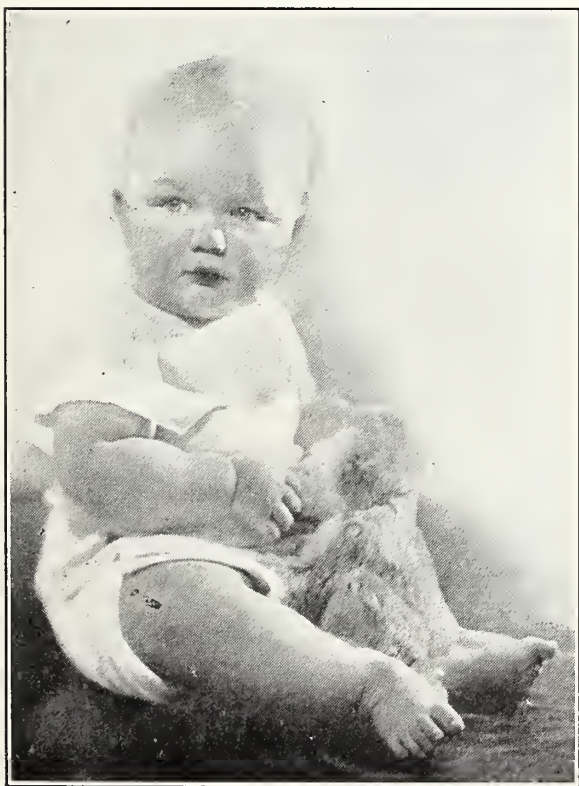
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paper on The Value of the Administrative Dietitian in the Hospital.

Miss Rena McGaughey, Superintendent, Christian Hospital, St. Louis, Missouri, gave an interesting presentation of the subject, "What Constitutes Good Nursing Care?"

Colorado Springs was selected as the meeting place for the Association in June, 1935. Mr. Walter Grolton, Superintendent, City Hospital, St. Louis, Missouri, was elected President-Elect; Dr. John Andrew, Superintendent, Longmont Hospital, Long-

mont, Colorado, First Vice President; Dr. Ned Smith, Tulsa, Oklahoma, Second Vice President; Mr. Guy M. Hanner, Superintendent, Beth-El Hospital, Colorado Springs, Colorado, Trustee for a term of three years; Mr. Louis C. Levy, Superintendent, Menorah Hospital, Kansas City, Missouri, Trustee for a term of three years; Mr. Norman J. Rimes, Superintendent, Christ Hospital, Topeka, Kansas, Trustee for a term of three years; and Mrs. D. I. McNulty, Morning-side Hospital, Tulsa, Oklahoma, Trustee for a term of three years.

STATE AID FOR VOLUNTARY HOSPITALS

MAURICE DUBIN*
CHICAGO

My subject is listed in a symposium on Hospital Legislation, more specifically, under the heading "Important Legislative Problems Affecting Hospitals." Shall we interpret this as meaning that the principle of State Aid towards the care of the Indigent Sick in Voluntary or Private Hospitals as well as for governmental hospitals (either state, county, or municipal) in this region is accepted as correct and sound, and that discussion either now or in the future insofar as our Tri-States is concerned shall limit itself to determining what would be the most appropriate and feasible legislation in these states, and methods of securing it? This is asked advisedly because in reviewing the hospital and legislative literature on this subject only as recently as March, 1929, in Hospital Management appears an article or report headed "New Jersey Commission Turns Down State Aid for General Hospitals" with a sub-heading "Educate Community and Solve Financial Problem is Gist of Report Covering Important Activities." The Report (some 42 pages in length), in conclusion in relating the attitude of the general hospital towards State Aid says that hospital superintendents are agreed that State Aid is not needed or desirable, and that it should be resorted to only in extreme circumstances. The superintendents are quoted in the report as asserting "that while

it is true that hospitals are doing a considerable amount of free service without recompense, they realize that the remedy lies with local communities which will respond to local appeals for increased support." But let us again note the date, March, 1929. Was it not in November, 1929, or perhaps October, that the "shot was fired which was heard around the world," now known as the Crash or Depression which has at least lately caused some of us to revise some of our views and psychology so prevalent during an era of largely imagined prosperity.

The Commission further summarizes these opinions:

1. "A Hospital is a local institution to be supported by the local community. With State Aid given, the local community would be doubly taxed and would not feel its responsibilities towards its own hospitals."
2. "The existing financial resources in local communities are adequate to care for free hospital cases arising in the community."
3. "The State is not likely to reimburse the hospitals as generously as the county does, and the State will not have the personal interest in or the knowledge of the need of each hospital as the county has."
4. "State Aid means the introduction of politics into hospital administration and introduces the danger of favoritism to hospitals having the greatest political influence."

The section also reiterates that twenty-

*Director, Mount Sinai Hospital, Chicago.

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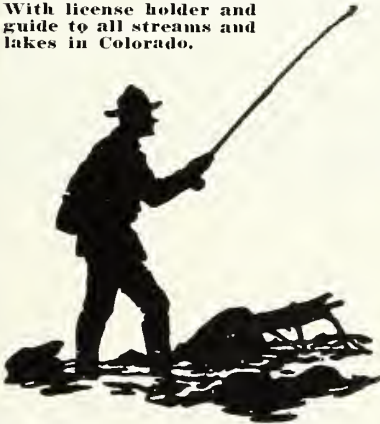
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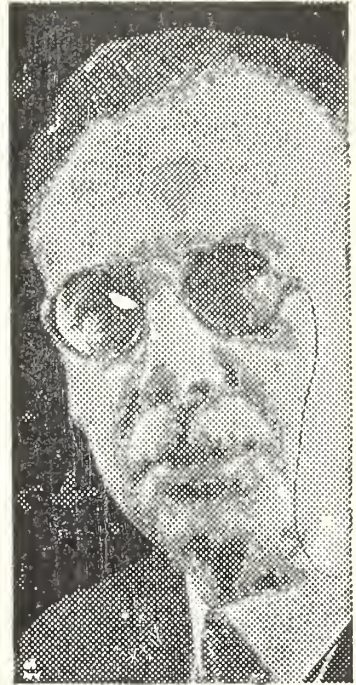
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five years prior State Aid was discussed and opposed. It quotes from the New Jersey Review of Charities and Corrections, March, 1903: "It is to be hoped that New Jersey will never embark upon a scheme of subsidizing private hospitals. Aside from the menace of politics and to philanthropy, we wish to emphasize the importance of receiving State funds only for such social needs as do not of themselves appeal to private philanthropy. There is not a hospital in the State that cannot secure all the money necessary to equip it properly and to care adequately for its constituency, provided its superintendent and officers will make known to the generous public its needs and its potential services."

We have extracted and quoted this report somewhat at length because it not only typifies the discussion contra State Aid prior to its date, but in a large measure also that which has been given since the time of its publication. And so turning to our literature on the subject again, we find that most of it exists in the Proceedings of our American Hospital Association Meeting in Detroit in 1932. Here the whole subject was opened for a thorough airing. In a General Session under the subject, "Dealing with Contributory Schemes to Support Voluntary Hospitals," and in several Round Tables under the General Title "Payment for Care of Indigent Patients by the Responsible Political Divisions," "Participation of Hospitals in Community Relief Funds," the pros and cons were thoroughly presented. The "cons" were quite similar to those heretofore listed. It is interesting to note here voices strongly urging the need for recognition of the Responsibility of Governmental Divisions for the care of the Indigent Sick in Voluntary Hospitals. Perhaps there is not yet unanimity as to which division is responsible. Federal, State, County or Municipal, but responsibility of governmental bodies is stressed. We hear voices of some who during the previous decade or so had dared to venture to assert softly that the State has an obligation towards the care of the indigent sick on Voluntary Hospitals and deemed that socialistic if not its darker cousin communistic, now somewhat aided and abetted by former

conservative "it shall be done by private philanthropy adherents" loudly, clearly and firmly insisting on the duties of the state or governmental bodies in this matter. Is it possible that an empty exchequer as well as an empty stomach provideth courage as well as a social point of view of a more permanently constructive nature. We find in these discussions our brethren from Canada as well as those from Pennsylvania and the one or two other States in this country which have had the vision to introduce State Aid to supplement their Voluntary hospital systems no longer somewhat apologetic for the vision displayed in those States in introducing the principle of State Aid when States still had funds. Quite the contrary, they are the center of interest and are importuned to tell how this has helped the Voluntary hospitals in these regions weather the financial storms of the past few years.

In order to summarize and present the situation as regards the present status of State Aid for our discussion today, I took occasion on behalf of the Hospital Association of Illinois to address a communication to the Secretaries of the State and Regional Hospital Associations to elicit information concerning its present status. We endeavored to secure in general information as to which States are now giving State Aid, the regulations covering this matter in such States, and the amount distributed annually by such states. We further attempted to ascertain where State Aid is not given, whether aid is given to Voluntary Hospitals by other units of government such as county or municipalities, if so, the names of such cities and counties, the basis on which aid is given, and amounts.

Forty-five communications were sent out, to which at the time of writing this report, twenty-seven replies were received. These were not in the form of questionnaires requesting specific information, but rather information of a general nature along the lines indicated above, and which could be answered by merely sending the pamphlets or copies of the Statutes or Regulations of the Department governing these matters in the States where State Aid exists. The replies received indicated a wide divergence in poli-

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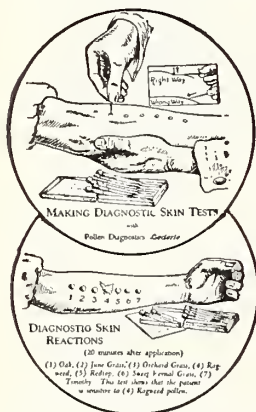
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cies relative to this matter not only between different states and regions but even within many of the states themselves, particularly, in states where there is no direct State Aid to Voluntary Hospitals but by other units of government such as County, Township or Municipality. One County or City may accept the cost of the care of the indigent patients in Voluntary Hospitals or provide a public hospital for the care of indigent patients. Another may provide no public hospital and refuse to pay for their care in a Private or Voluntary hospital. In studying the replies, the need was clearly indicated of having a clearance place somewhere, probably through our American Hospital Association and its Legislative Committee for information relative to State Aid or other governmental units. Here one should be able to find listed the States, Counties, Municipalities throughout the States and country giving aid or making payments for care of indigent patients, the amounts given, and the basis on which given. It would be helpful to any city or county or state working towards this end to have such up-to-date information available.

Based upon the replies received, we are able to cite aside from Canada where Provincial Aid for Voluntary Hospitals is accepted as the expected and unusual thing, only two States, namely Pennsylvania and Connecticut, where direct State Aid is given. We shall comment on them again a little later along with our discussion of the Pennsylvania State System which is the classical example of a satisfactory and acceptable system of State Aid.

The situation in our own three States is as follows:

In Illinois there is no State Aid and no County or Municipal Aid for Voluntary Hospitals. During the past year it may be interesting to note one of the private hospitals received a verdict against the County in a suit for payment for the care of indigent patients. Whether that decision will be upheld is not known.

In Wisconsin there is no State Aid for Voluntary Hospitals in the generally accepted sense. There is provision under the Wisconsin General Hospital Law that in the event the County Judge finds that the needs of an indigent patient referred to him for hospitalization in the State Hospital at Madison can be cared for equally well at home, and at no greater cost to the County, he may order such local hospitalization at County expense. This, however, has never covered any



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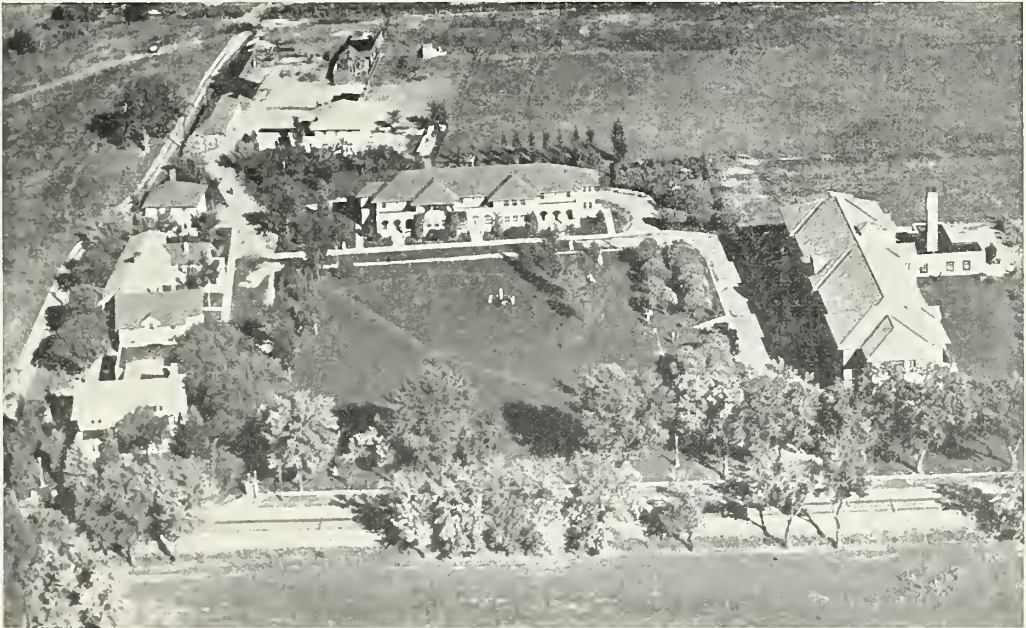
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considerable percentage of hospital care for indigent in the State.

In Indiana there is no State Aid but in the past some enabling acts have been passed by the State Legislature which make it possible for either a city or county or township where there is no public hospital to levy and collect a special tax and are authorized to make appropriation of money to hospitals organized as a benevolence and not for profit from such collected taxes. These taxes vary from three cents to seven cents on each hundred dollars of taxable property in such cities, counties or townships.

Missouri, Colorado, Oklahoma, Arkansas, Oregon, California report no State Aid with some few exceptions where occasionally in a county here and there an allowance of one dollar per day for the care of indigents in a Voluntary Hospital is allowed.

New York, New England Hospital Association (comprising Massachusetts, Maine, New Hampshire, Vermont, Connecticut, Rhode Island) also Kentucky and Virginia report no State Aid, but generally speaking there is some local arrangement with county or city authorities or Departments of Public Welfare for the payment for care of indigent patients either on a per capita or per diem basis.

In Ohio, hospitals receive no direct State Aid. It is entirely a matter of local support. Some communities support their hospitals very well, either by lump sum appropriations or by contract at a fixed rate per bed per day, others have failed to recognize obligations or disregarded it. It is a matter of the ability of the local hospital organization to sell the community on the necessity of this type of support. It may be interesting to note that the Ohio Hospital Association sponsored a Bill which became effective October, 1933, which created a fund from automobile license tag fees to reimburse hospitals of the State for the care of indigent patients injured in motor vehicle traffic accidents.

Minnesota reports no State Aid and negotiations with the Governor for some form of State Aid, who stated he would include in his budget a sum whereby the State government would match all funds provided by the National government for Voluntary Hospitals. A rather neat example of "passing the buck."

Mississippi State Hospital Association reports that it has been working for several years on State Aid; that in 1932, \$39,000 in limited Aid for thirty-five Voluntary Hospitals was given. The Bill introduced in 1934 makes provision for \$300,000 to be appropriated for the care of indigent sick on the basis of an appropriation to each county of fifteen cents per inhabitant of the population on an annual basis.

Connecticut reports that the State distributes \$311,250 per annum to the general hospitals of the State with no details as to the basis of distribution.

The situation in Canada is clearly set forth in replies from the secretaries of the Hospital Associations of Saskatchewan, Nova Scotia, British Columbia, Alberta, Manitoba, Ontario, Quebec, Montreal Hospital Council and from Dr. Harvey Agnew, Secretary of the Canadian Hospital Council. They have been kind enough to furnish us not only with the pamphlets and regulations covering the question of State or Provincial Aid, as it is termed there, but statistics and data setting forth the amounts actually received by hospitals and paid out by governmental agencies. Since the principle of State Responsibility has for the great-

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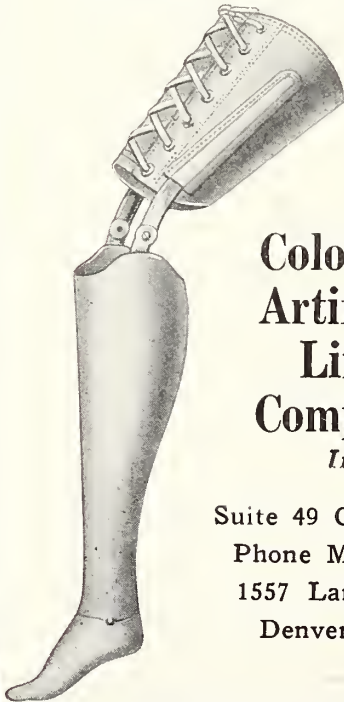
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er part been so clearly accepted in Canadian provinces we feel that all of this data may be valuable to Legislative Committees working towards this end in our States and will file same for their information. At the present we will, for the sake of brevity, mention that it is all summed up in Bulletin No. 9, of the Canadian Hospital Council, which is a report of "The Committee on Hospital Legislation." It is also thoroughly reviewed and summed up in a paper entitled "Canadian Hospital Contributory Schemes," by Dr. Fred W. Routley, President of the Canadian Hospital Council, published in the Proceedings of the American Hospital Association of 1932, and the January, 1933, Bulletin of the American Hospital Association. To quote Dr. Routley:

"Varying amounts of financial support are given to these hospitals by governments and municipalities in the different provinces. In no case, however, does this support cover even the current cost of the treatment of the indigent sick in the institutions. In two of the eastern provinces there is no legislation providing for any patient per diem financial responsibility by the state. Lump sum grants, however, are made to the hospitals from year to year.

"In all of the other provinces per diem support is granted by government legislation, which takes two forms. In the first place direct support is given by the Provincial Governments ranging all the way from 25 cents per patient day to \$1.25 per patient day. In the case of most of the provinces, these grants are made only for the care of indigent patients or patients paying public ward rates.

"In one province, however, 50 cents per day is paid by the government for every patient during a period up to three months of his stay in the hospital.

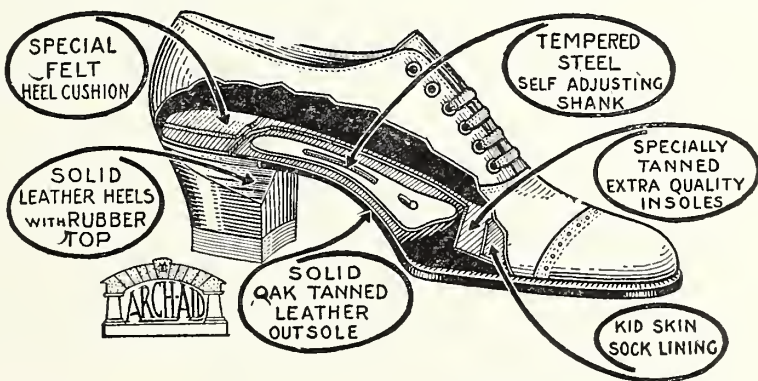
"Second, the governments in most of the provinces have passed legislation making it obligatory for municipalities to pay varying amounts up to a maximum of \$2.50 per day for the treatment of the indigent sick in their hospitals. In my own province of Ontario, the government pays 60 cents per day for all indigent patients and all patients paying not more than \$1.75 per day for their treatment, and 30 cents per day for newborn babies of indigent parents during a period of fourteen days stay in hospitals. The government also pays \$2.00 per day for all indigent patients treated in hospitals who reside in outlying unorganized districts. Provincial legislation compels all organized municipalities to pay \$1.75 per patient day for all indigent patients residing in their districts."

Realizing that Legislative Committees of our Tri-States in proposing programs for State Aid would be more apt to be pressed for precedents in the United States rather than in Canada, we have endeavored to secure detailed information regarding this in Pennsylvania, which now appropriates over seven and a half million dollars each biennium to 163 Voluntary Hospitals in addition to supporting ten State General Hospitals. The other States giving some form of direct State Aid are Maine, Connecticut, Maryland and Mississippi. Through the

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kindness of Mr. Howard Bishop, Secretary of the Pennsylvania Hospital Association, and Mr. Clement W. Hunt, Deputy Secretary, Department of Public Welfare, we have in our files all available data, forms, legislative material, etc., used in this matter. So thoroughly does Mr. Hunt's communication set forth the situation that I include his letter in toto, and deem it important to read you some of the salient paragraphs:

Mr. Maurice Dubin, Secretary.
 Hospital Association of Illinois,
 Chicago, Illinois.

Dear Mr. Dubin:

Your letter of March 29th, addressed to the attention of Mrs. Alice F. Liveright, Secretary of Welfare, has been referred to me. It happens that only yesterday I prepared some material for Mrs. Liveright which gives the background of State Aid for hospitals in Pennsylvania. I am sending you a copy for your information.

There are 163 general hospitals receiving aid from the Commonwealth. Appropriations are made on a biennial basis and the total appropriations for this purpose for the current biennium are \$7,553,350.00. A direct appropriation is made to each hospital and the Appropriation Act is uniformly worded as follows:

"NO. 208-A"

AN ACT

Making an appropriation to the McKeesport Hospital, Pennsylvania.

"Section 1. Be it enacted, etc., that the sum of \$69,600.00 or so much thereof as may be necessary is hereby specifically appropriated to the McKeesport Hospital, of McKeesport, Pennsylvania, for the two fiscal years beginning June 1st, 1933, for the purpose of maintenance, interest on debt and repairs; to be paid according to regulations and in the manner prescribed by law, at the rate of \$3.00 per diem for the Medical and surgical services rendered to and maintenance of each person treated in said hospital who is entitled to free service, and, for each day of part pay service, such proportion of the aforesaid \$3.00 per diem rate as the part of the regular ward charge which the person so treated is not able to pay bears to the regular ward charge for such free service. Provided, however, That said hospital shall not receive compensation at a rate exceeding the actual cost of service per capita in the public ward of said hospital.

"Approved—The 2nd day of June, A. D. 1933, in the sum of \$45,000.00. I withhold my approval from the remainder of said appropriation because of insufficient State revenue.

"GIFFORD PINCHOT."

The uniform system of accounting in all hospitals is basic to this plan of appropriating money to the general hospitals. In 1922 the Department developed a uniform accounting system and required its installation in each and every hospital receiving State Aid. By means of this accounting system it is possible to segregate the expenses and determine the per capita cost per diem of ward care. We realize, of course, that this is not a cost accounting system refined in such detail as to give thoroughly reliable costs, but it has proved satisfactory for our purposes.

I am sending you under separate cover the



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quarterly report forms used by the hospitals in requisitioning payment from the State Treasury. The blue form will give you the chart of accounts and also explain the segregation of expenses for the purpose of determining the ward costs. You understand that payments to a hospital are made at actual ward cost not to exceed \$3.00 per day for each patient receiving free service. Representatives of the Department of the Auditor General visit the hospitals periodically to check the financial records and the quarterly reports. This is of value, not only as an audit, but it insures reasonable uniformity of bookkeeping in all hospitals. We feel that in Pennsylvania we have the largest number of hospitals using uniformly the same system of accounting that one can find anywhere.

When the present system of appropriating money to the general hospitals was inaugurated in 1923, we stressed the importance of setting up in each hospital a Social Service Credit Office. We did not want the hospitals to establish the same sort of a credit office that one finds in a commercial enterprise. We considered it of prime importance that the person who had charge of the credit work should have the social service worker's point of view, that is, a sympathetic understanding of a person's ability to meet a hospital obligation. This plan has worked out very well and has meant a tightening up of collections and free service at a time when it is imperative that hospitals exercise rigid economy.

A hospital is required to fill out for each patient requesting free or part-pay service Form 65 Credit Report. Samples of this form you will receive under separate cover. Field representatives of this Department who are women of excellent training and broad experience in the field of hospital social service work visit the hospitals periodically to check the free service rendered. This report of free service accompanies the financial report as the basis of payment of the State Aid. The Field Representatives of the Department of Welfare have been visiting these hospitals for ten years, not as mere checkers of free service, but for the purpose of coaching the workers in the hospitals in the social service credit work. Moreover district conferences have been held from time to time attended by the hospital workers for the discussion of their problems. We feel that this work has been of great importance.

The rules and regulations governing free service are being sent under separate cover. Please understand that we do not attempt to regulate the free service in the general hospitals for they are private enterprises. What we do control by regulation is the type of case which a hospital can include in its report on free service submitted quarterly as the basis of a State appropriation. New Rules and Regulations have been developed which include the standards for plant and service which the Department will observe in approving or disapproving hospitals for State Aid. These new standards have not been finally approved. Under the present arrangement the Department can withhold payments to any hospital which does not render satisfactory service.

Needless to say the Commonwealth does not undertake to pay a hospital in full for all free service rendered. In the first place, there is the maximum rate of \$3.00 per day which in actual cost is exceeded in most of the hospitals. In the second place, it is felt that each community should make its contribution for needy patients. The State could not undertake to pay a hospital for all free treatment rendered. In recent years, the

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State's contribution has been approximately 50 per cent of what free service would amount to at the maximum rate of \$3.00 per day.

It is intended that the hospitals in the two metropolitan districts, Philadelphia and Pittsburgh, shall get relatively less than hospitals in the smaller cities, and that small rural hospitals such as a thirty-bed hospital in a town of 3,000 shall get proportionately more than the other hospitals. This does not always work out because the General Assembly can control the amount carried in a Bill. The Governor can cut an appropriation Bill but he cannot increase an appropriation to a hospital even though the Department would so recommend.

There are two other points I must mention before closing. I neglected to say that the Department has furnished the loose leaf sheets for the uniform patient register and accounting records as well as Form 65, and the quarterly report forms.

Finally, the State works on the policy that it is purchasing free service for needy patients of the hospitals. Accordingly we have never been concerned since 1923 with the amount any hospital received from endowments, Community Chests, or other gifts. From time to time it has been proposed that such items be taken into account but our answer has been that to do so would discourage endowments and would result in a Community Chest cutting down its allocation for a hospital.

I trust the information which I have given you herein will be of interest and value to you in the study which you are making of "State Aid for Voluntary Hospitals." If we can be of further service to you, please do not hesitate to write.

Sincerely yours,

(Signed) CLEMENT W. HUNT,

Deputy Secretary, Department of Welfare, Commonwealth of Pennsylvania.

I presume that after listening to all of these reports from the various states, you perhaps rejoice that only twenty-seven out of forty-five replied. It may, however, be worth our while, this taxing of our patience as listeners, if some of the information secured serves as an incentive to work for some sound legislation making it possible for the Voluntary hospitals of the States to secure some additional sources of income of a definite fixed amount as is possible through tax funds. We should not depend solely any longer on passing the hat around to keep our hospitals going. This is substantially what we are doing by relying solely on voluntary contributions whether direct or through Community Chests. We do not, after all, ask for a subsidy but a payment for service rendered to the city, county or state for the indigent sick within its confines. There is, it seems to me, furthermore involved a great principle. By insisting that the State or Municipality contribute towards



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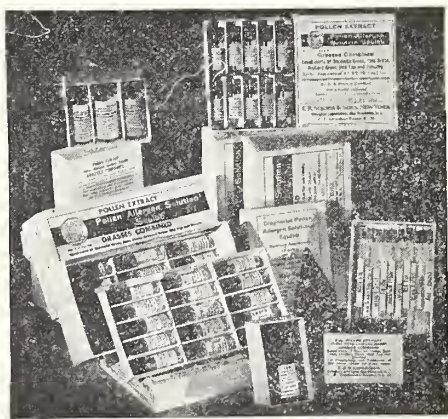
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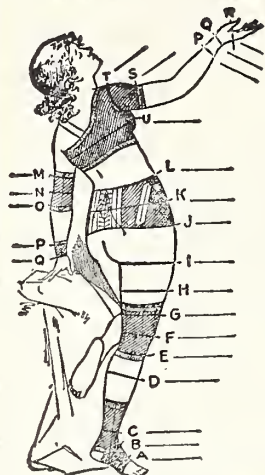
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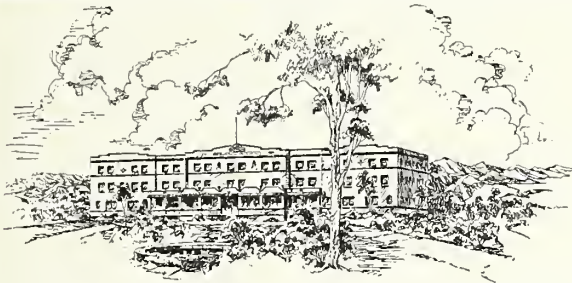
the care of the indigent sick, we maintain the principle that health, like education, is an obligation of the State. Incidentally it is interesting to speculate as to what would be the situation in the field of education to-day if schooling depended on the efforts of groups to voluntarily organize, construct, equip and maintain schools here and there? I personally do not attach much importance to reasons advanced against State Aid as a deterrent for private contributions. I do not think any of us can visualize at least in the immediate future the time when State or Municipal Subsidies will equal the cost of taking care of a patient in our hospitals. We will therefore not relinquish our claims on private philanthropy for the support of indigent patients by accepting some pay from a State or Municipality towards their care. If we can secure these funds, we can divert some income from endowment funds towards the proper care of patients of moderate means which will entitle us to further claims for Voluntary contributions. There is no question but that the costs of hospital care over a period of time will continue to rise for the very simple reason that hospital care is tied up with the science of medicine which is progressing and becoming more costly. Newer diagnostic methods with laboratory methods and instruments of precision, newer forms of therapy all spell greater costs. Hospitals will therefore have their claims on both private philanthropy and tax funds. Since in our State so little has been done along the latter line, it may be just as well as to try to induce local almost bankrupt units of government to concentrate on a campaign of public education for some form of State Aid. Already a precedent has been set in large sums made available for unemployment relief through State Sales Tax Funds. Perhaps as the need for Unemployment Relief subsidies, a concerted movement to maintain such a levy in part at least for the care of the sick poor in the State would meet with popular favor. A movement to help keep the Voluntary Hospitals of the State which have so unselfishly served their communities in the past open, and on a high plane of efficiency.

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Perhaps our neighbor to the northwest, Wisconsin, with its excellent record for Social Legislation will join us as well as our neighbor on the south and east, Indiana, so that we can join the little band of enlightened states and provinces of Canada which have had the vision to take such action in the past as to make it easier to weather the storms of the past few years.

DR. ANNIE WARBURTON GOODRICH COMES TO COLORADO

Of special interest to nurses and others interested in nursing education is the coming of Dr. Annie Warburton Goodrich, Dean of the Yale University School of Nursing, to Colorado in July. Miss Goodrich is one of the visiting members of the faculty of The Colorado State Teachers College at Greeley this summer and is giving a two weeks' intensive course of lectures in The Survey of Nursing Problems. This course is open to all nurses enrolled at Greeley as well as to those nurses who wish to enroll only for the lectures.

The State League of Nursing Education is sponsoring a banquet in honor of Miss Goodrich at the Cosmopolitan Hotel, Denver, on July 27, at 8 p. m. The State Nurses Association and the State Hospital Association are helping the League to make this banquet a big success. We are, therefore, extending a cordial invitation to all nurses, hospitals and their personnel, the doctors of the State and County Medical Societies, public health workers, and others interested.

IMMATERIA MEDICA

"So you think you must have a forgiiving nature?"

"I must have. I always go back to the same dentist."

* * *

Minister: "And in closing, brethren, let us pray. I will ask Deacon Brown to lead."

Deacon Brown (awakening from a nap): "Hain't my lead, I dealt."

* * *

"I saw in the paper that in some out-of-the-way corners of the world the natives still use fish for money."

"What a sloppy job they must have getting chewing gum from a slot machine."

Guide: "The green garden snakes around here are not harmful."

Old Lady: "Aren't they as dangerous as the ripe ones?"

* * *

"Dad," said the youngster, just as his father had settled down to enjoy his magazine, "am I made of dust?"

"I think not," replied the patient parent; "otherwise you would dry up now and then."

* * *

"I understand you've got a divorce, Mandy. Did you get any alimony?"

"No, Mrs. Jones, but he done give me a first-class reference."

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EDITORIAL NOTES AND COMMENT

Hospitals Must Recognize The County Medical Society

LAST month we promised further comment upon some of the vigorous actions of the American Medical Association House of Delegates looking toward better unity of the medical profession.

One of the strong policies adopted is expressed in the following resolution, adopted by a viva voce vote that was near to unanimous:

"Resolved: That it is the opinion of the House of Delegates of the American Medical Association that physicians on the staffs of hospitals approved for intern training by the Council on Medical Education and Hospitals should be limited to members in good standing of their local county medical societies and that the House of Delegates requests the Council on Medical Education and Hospitals to take this under advisement."

This resolution was adopted despite an adverse recommendation by the House's reference committee, to which the document had been referred for study. The reference committee apparently feared that the resolution was too strong, could not be enforced. But the action of an overwhelming majority of the House indicated determination in every part of the United States to tighten the medical profession's control of its subsidiaries.

It was well pointed out in discussion that too frequently does the hospital management feel that the doctor is working for the hospital, rather than that the hospital is truly the doctor's assistant, part of his armamentarium. The latter interpretation does not

in the least discount the hospital's importance, either to the doctor or to the community.

We are fortunate in that this particular action of the American Medical Association will not necessitate any grave changes in hospital staffs or hospital policies in Colorado. Very few physicians who are not members of their county societies at present serve on the staffs of hospitals approved for intern training.



Inadequately Trained Anesthetists

DURING the past decade there has been a progressive invasion of the field of anesthesia by technicians and nurses. The rights and duties of regularly qualified physicians have thereby been usurped. During this period these same usurpers have made no contribution to the development of the science and art of anesthesia. The advancement is already so great that safe utilization of the scientific developments requires a complete medical education.

The effects of this insidious inroad into an important field of medicine is more far-reaching than might superficially appear. Residents and interns are denied adequate instruction, though in subsequent years many of them will depend upon training which is rightfully theirs during that vital period of education. Furthermore, medical graduates are being deterred as aspirants to this field—which simply means a future dearth of qualified successors to the trained

physicians who are now developing anesthesia.

The surgeon is technically and legally responsible for the liabilities entailed by the administration of an anesthetic by anyone other than a duly qualified physician. The artifice is too obvious—the surgeon is rarely present during the induction, and beyond that he is too engrossed in his own procedure to be capable of sharing the anesthetist's responsibilities, particularly in the face of an emergency. Furthermore, an institution which informs the public that it furnishes the anesthetist is guilty of a certain degree of misrepresentation as long as there remains the implication that the anesthetist is a doctor of medicine.

Dr. James N. Vander Veer of New York presented a pertinent resolution to the House of Delegates of the Medical Society of the State of New York. After setting forth the above among other facts to the House, Dr. Vander Veer's resolutions were as follows:

"That the Medical Society of the State of New York affirm that the giving of an anesthetic constitutes the practice of medicine and insist upon the strict observance of the provisions of the medical practice act, without supertfuge or evasion.

"That the delegates of the Medical Society of the State of New York to the American Medical Association be instructed to present a similar resolution to the House of Delegates of the American Medical Association at the impending session in Cleveland."

The resolution was thus carried to the Delegates for consideration at the recent national session. The matter could not be disposed of at that time but has been referred to the Council on Medical Education and Hospitals.

The importance of unnecessary encroachment by inadequately trained individuals upon the field of scientific medicine is a dangerous menace to the progress of one of its most important branches. So far, it could be brought entirely within our own administration; otherwise time will find it added to the list of many other unweildy extraneous forces which tend to impair our rightful control of medical service.

The Annual Session— A Membership Privilege

ONE of the many privileges accruing to members of the Colorado State Medical Society is their right to attend and take part in the Annual Session. The Annual Session costs money, which money members have contributed in their annual dues. In past years an appreciable number of Colorado physicians, not members of the Society, have taken part in the Annual Session on virtually an equal footing with members. Members have justly objected to this, which while not definitely prohibited, is not in keeping with the spirit of the Society's By-Laws.

With the approval of the officers, the Committee on Scientific Work has this year fixed a registration fee of five dollars for the Annual Session to apply to all Colorado physicians who are not members in good standing of our State Medical Society. This will not apply to physicians from other states who are members of their respective county and state medical societies—they are welcome; they will be our guests.

Members of the Society should more easily recognize a privilege which is already theirs, one for which they have already paid in both money and effort. Non-members perhaps avoiding the meetings because they feel they have no right to be there should have no timidity about coming this year. And the Committee promises that gate-crashers, if there be any, will find the crashing difficult.



Western Hospitality Hangs Its Head

WE apologize to many of our readers, particularly in Western Colorado, for having inadvertently been party to a misleading invitation. It will not happen again if we can prevent it.

In all good faith we gave publicity to cordial invitations that were issuing from official sources, urging Colorado physicians to attend the joint annual session of the Pacific Northwest Medical Association and the Utah State Medical Association in Salt Lake

City in June. The invitations promised us all a hearty welcome. In none of the material reaching us was any mention of compulsory membership in the Northwest Association—only “cordial invitation” and “hearty welcome.”

A number of western Colorado physicians and a few from farther east spent good railroad fare or gasoline money to visit the meeting only to find that they must needs buy membership in the Pacific Northwest Medical Association at fifteen dollars each before being admitted to the session. Complaint of misleading invitations was to no avail. Visiting doctors from Colorado had to shell out or get out. And bear in mind that fifteen dollars is half again as much as the annual dues assessment of the Colorado State Medical Society.

Occasionally it becomes necessary for the Colorado Society or one of its constituents to finance some event with a small registration fee. But when we do so, we publicize the fact of the fee as thoroughly as possible.

We hope that those who extended invitations to us, and through us to the Colorado profession, were as misinformed concerning the true nature of the Salt Lake meeting as we were ourselves. We hope the situation resulted from some misunderstanding, for it contradicts the traditional hospitality of the West.



Plan to Attend Our Annual Session

NOTE that this is the program number for an excellent session in your favorite convention city. To review the many reasons why you should attend would not honor your recollections of previous meetings—nor is it necessary to remind you of the refreshment of mind and body.

At hand is a communication from one of our members whose enthusiasm has assumed the form of both poetry and prose. It is all truth; let us take his advice:

“Ho, everyone that thirsteth come ye to the waters, and he that hath no money, come ye buy

and eat; yea, come buy wine and milk without money and without price.”

The stirring call of the prophet to the Children of Israel can be used with equal truth and applied with equal precision in urging all members of Colorado State Medical Society to come to the Annual Meeting at Colorado Springs in September.

The reason therefore is twofold: Intellectual,
 “A little learning is a dangerous thing
 Drink deep or taste not the Pierian Spring,
 Their shallow draughts intoxicate the brain,
 And drinking largely sobers us again.”

Social: in those who are younger to form friendships and associations that time will mellow and fructify, and in those of maturer years to renew the friendship of earlier days and recall the wonderful exploits of our heroic youth.

That the program will be good is beyond question; neither the milk nor the wine will be ignored.

The Ladies will be trebly welcome; welcome for their own sakes, welcome for the names they bear, and welcome for that moral support which they so freely and graciously bestow on their life partners.

Choose ye therefore the better part. Come prepared to give; come prepared to receive; come prepared to enjoy.

C. B. D.



Sodium Chloride in Addison's Disease

EXPERIMENTS have shown that in adrenalectomized animals there occurs a loss of sodium and chlorin. The workers believe that the adrenal cortical hormone may be chiefly concerned with salt regulation.

Loeb has recorded a decrease in the blood sodium in the serum of patients with Addison's disease. Marked clinical improvement has followed the administration of large amounts of sodium chlorid. Addison's disease victims have been maintained in apparently good health by the administration of ten grams of table salt orally each day.



Thanks to Wyoming

SEVERAL members of the Colorado State Medical Society were royally entertained as guests at the recent annual session of the Wyoming Society in Casper. We enjoyed the good fellowship, the program, and the entertainment. No wonder that State is endeared to every one of its loyal citizens. Theirs is the genuine hospitality of the West.

Thank you again, Wyoming!

CORONARY ARTERY DISEASE IN HYPOTHYROIDISM*

H. A. BLACK, M.D.
PUEBLO, COLORADO
and

R. H. KAMPMEIER, M.D.
NEW ORLEANS, LOUISIANA

As a manifestation of the not infrequent occurrence of arteriosclerosis in hypothyroidism, coronary artery disease is of interest and significance. The importance of the subject lies in the recognition of its occurrence, the proper evaluation of pain of possible cardiac origin, and especially the knowledge that thyroid extract improperly used may lead to coronary death.

To clearly outline the subject, it should be noted that we shall not consider "myxedema heart" in this paper. In 1925, Fahr brought this entity to the attention of the American profession. Characteristic of this condition are the subjective symptoms of heart failure, often present for years, which cannot be successfully treated by digitalis, but which will be relieved by thyroid extract. Objectively there are marked cardiac enlargement, due to dilatation of all chambers, and certain typical electrocardiographic changes. We mention this much debated syndrome merely to differentiate it from the subject under consideration.

Several authors have noted the tendency to arteriosclerosis in the hypothyroid state, irrespective of age. These findings were described as early as 1888, but were attributed to old age. However from 1895 to 1901 experimental work on sheep, goats, and dogs demonstrated that arteriosclerosis occurred in thyroidectomized animals.

Fishberg¹, in 1924, was the first to call attention to its clinical significance, when he reported the case of a male, aged 21, who, after five years of symptoms, came to autopsy with the findings of marked sclerosis of the aorta, coronary arteries, and kidneys. Sturgis and Whiting² a year later reported the case of a woman who died of cardiac infarction after two weeks of thyroid medication. Means, White and Krantz³ reported a similar case in 1926. They also had another

patient who had angina of effort at a B. M. R. of minus 28 and in whom the frequency of attacks increased with rise in metabolism. Pratt and Morton⁴ reported the case of a woman suffering with cardiac pain and in whom coronary sclerosis was found anatomically. In 1932, Fahr⁵ again discussed his first case of "myxedema heart" of 1925 because of the later appearance of symptoms of coronary disease.

Case Reports

In recent years we have followed four cases of hypothyroidism presenting symptoms and signs of coronary disease. These are briefly reported below.

CASE 1

White female, aged 54 years, was first seen in 1928 because of weakness, ease of fatigue and anorexia. B. M. R. was minus 29. Improvement took place on thyroid extract. She was seen at rare intervals until 1932 when she complained of palpitation and cardiac irregularity of two months' duration. Patient also noted weakness, fatigue, cough, breathlessness on exertion, and nocturnal dyspnea. She slept better propped up. Attacks of retro-sternal "tightness" occurred at times on exertion.

Examination revealed moderate sclerosis of the peripheral vessels. The left cardiac border was beyond normal limits. Occasional premature beats were present, sounds were distant and of but fair quality. Pulse was 92; blood pressure, 175/95. B. M. R. was minus 25. Electrocardiogram showed right ventricular preponderance, coronary T wave in lead 1 with inverted T wave; inverted P wave in lead 1; slurred QRS in lead 2 (no digitalis).

CASE 2

A white female, 50 years of age, presented herself in 1929 because of weakness, anorexia, constipation and sluggish mentality. Breathlessness and palpitation were noted.

On examination were noted pallor, thinning of eyebrows, a heart of borderline size with a rate of 80, and a blood pressure of 160/90. The lowest B. M. R. before treatment was minus 37.

Thyroid extract produced improvement and throughout treatment the metabolism was kept at a low normal. In 1932 the patient suddenly collapsed and died in two hours with the characteristic picture of coronary closure.

CASE 3

A white woman, aged 58 years, was seen in 1929 because of gain in weight and sluggishness of several months' duration. At this time she showed slow, thick speech and mental sluggishness. Skin was dry and scaly, and there was thinning of the hair. Nothing remarkable was recorded about the heart. Blood pressure was 170/90 and pulse 80. Hemoglobin was 50 per

*From the Pueblo Clinic, Pueblo, Colo., and Department of Medicine, Louisiana State University Medical Center, New Orleans, La.

cent (Dare), red cell count 2,600,000, and B. M. R. minus 30.

After a few months of treatment the voice became natural, the skin normal and weight was lost. Blood count and metabolism were in normal range. Improvement continued eighteen months, though there was a steadily rising blood pressure.

In the summer of 1931 the patient stopped the medication of her own accord and by August her family had noted recurrence of the previous state. When she consulted us in November, 1931, she presented the classical picture of myxedema. There were present apathy, pallor, puffiness of face and lips, thinning of eyebrows and hair, and a dry cold skin. The radial arteries were sclerosed. Blood pressure was 240/120. There was definite cardiac enlargement; a systolic murmur was heard at apex and aortic area. The sounds were of poor quality; the rate was 90. Urine showed a trace of albumin and a few hyaline casts. B. M. R. was minus 27.

Thyroid extract was prescribed and improvement began. Three weeks later she suddenly developed severe substernal pain, vomited and died in a few minutes.

Autopsy: Heart was enlarged. Myocardium was flabby and the right ventricular wall was heavily infiltrated with fat. The left coronary artery was very tortuous and the first inch of its course was so calcified that it rang on being tapped with a scalpel. Here the lumen on section would barely admit a small broom straw. Mitral and aortic valves were thickened. The aorta showed large patches of advanced atheroma. Two calcareous nodules 5 mm. in diameter projected 5 mm. into the lumen of the aorta just above the aortic ring.

CASE 4

A white woman, 36 years of age, was first seen in 1929 because of ease of fatigue. Examination showed no signs of cardiac disease. B. M. R. was minus 32. Clinical improvement followed therapy, but the use of the extract was apparently variable.

In 1933, after a six-month interval, she presented herself because of recurrent attacks of severe retro-sternal pain upon exertion. Peripheral arteriosclerosis was present. Blood pressure was 118/95; B. M. R., minus 21. Electrocardiogram showed right ventricular preponderance with very low voltage in all leads; P and T waves were inverted in lead 3 (no digitalis).

Comment

Our cases of hypothyroidism with coronary disease were all in women varying in age from 40 to 58 years. The second and third case died with characteristic findings of coronary closure, proved anatomically in case 3. Cases 1 and 4 complained of retro-sternal pain, especially severe on exertion. The description of site and type of pain were typical of its coronary origin. In both these patients were found electrocardiographic changes compatible with coronary disease.

Discussion

Since no acceptable reason has been advanced for arteriosclerosis appearing in hypothyroidism, we shall not go into this

question. That the hypothyroid state predisposes to sclerosis, irrespective of age, may be accepted without question, as indicated by its occurrence in youth and as a result of experimental total thyroidectomy in animals discussed above. (It will be of interest to note whether patients with cardiac failure treated by total thyroidectomy, as was recently recommended by Blumgart and his collaborators⁶ will develop coronary symptoms, especially since some of these suffer from arteriosclerotic heart disease.

Cardiac pain on exertion may be present in the hypothyroid state, as well as in the patient with coronary disease without hypothyroidism. But of greater importance is the occurrence of cardiac pain upon the exhibition of thyroid extract. Coronary sclerosis damages the myocardium of the hypothyroid patient just as it does when the metabolism is normal. However, as the metabolism rises under thyroid medication, there is an increasing blood flow to care for the increased cellular metabolism. As a result of greater blood flow more work is rapidly thrown upon the heart which may cause no difficulty in an undamaged myocardium. With sclerosed coronary arteries, however, the increased demand on the heart cannot be met by adequate blood supply to the myocardium and therefore symptoms may present themselves. Anemia is frequent in myxedema and it alone necessitates increased blood flow, and when elevation of metabolism is added to this, the demands on the heart muscle may not be satisfied. Further, Thompson⁷ has shown that thyroid medication may actually increase the anemia. In myxedema, plasma volume is reduced. When, under thyroid extract, the metabolism rises, plasma volume increases parallel to it—thus actually further diluting the hemoglobin. In some cases the pain may come on at rest with rising metabolism; in others it comes on only after effort is added to the increased work of an elevated metabolism.

It thus becomes evident that treatment offers certain problems for consideration. Unfortunately the handling of the myxedema patient has been considered too simple by the average physician and poor treatment

and mistakes have resulted. In certain cases treatment implies more than just giving thyroid extract until metabolism approaches normal, and it must be emphasized that mismanagement may even lead to fatalities. Since it may be accepted that hypothyroidism predisposes to arteriosclerosis, it would seem imperative to us that the patient remain constantly on thyroid medication. It has been our experience that it is uncommon to find a myxedema patient who follows treatment faithfully. Most patients, as some of our group, are very variable in their intake of the extract. We know some physicians condone this attitude, thinking it merely means starting all over again when symptoms of myxedema appear. It seems probable to us that arteriosclerosis may steadily advance under inconstant medication, since much of the time the patient may be hypothyroid enough for abnormal tissue metabolism but may still feel himself in fair health.

It would seem best to proceed slowly with thyroid medication and to keep the patient under careful observation for symptoms of coronary disease, and upon the appearance of such to use extreme caution to avoid possible fatality. In our two patients who died there had been no attacks of cardiac pain before the fatal one. If the frequency and severity of attacks increase with rising metabolism, it may be necessary to compromise with the hypothyroid condition, keeping the patient at a metabolic level below normal, giving enough thyroid extract to carry on the activities of life, but no higher than necessary in order to keep cardiac pain at a minimum. In the absence of coronary symptoms the electrocardiogram may give suggestive information.

At times in the presence of much myocardial fibrosis resulting from coronary sclerosis, congestive failure may develop with the increased demand upon the circulation resulting from rising metabolism. In such cases digitalis is indicated in conjunction with thyroid extract.

Conclusions

Hypothyroidism predisposes to arteriosclerosis. Four cases have been reported in

which were found evidence of coronary artery disease. The symptoms of coronary sclerosis may appear with thyroid medication as a result of increasing demand made upon the myocardium to supply the necessary blood flow attendant upon rising metabolism. Fatalities from coronary artery disease may result from the misuse of thyroid extract. Patients being treated with thyroid extract should be carefully observed for evidence of coronary disease, and the use of the medication should be governed according to the individual case.

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There has scarcely been a damage suit entered against a physician, in which this writer was called as a witness, wherein the initiative could not be directly or indirectly traced to a remark by some members of the medical fraternity.—*Edi. in Jl. Med.*, Feb.

"I do not think you will make the doctor a better medical man by making him more of a civil servant and less of a doctor; for there is something inherent in officialdom which freezes the genial current of the soul, and thaw it as you will by whatever new principles of kindness and mercy it can never be thawed right out."—Hogarth.

Many surgeons find it a good practice to accept no fracture case, until the patient sign a legal release.—*Southern Medicine and Surgery.*

BLACK WIDOW SPIDERS—A WARNING*

FRANCES E. BECKER, M.A., and FRED E. D'AMOUR, Ph.D.
DENVER

It seems advisable at this time to sound a note of warning to the medical profession concerning the ever-present menace of arachnidism. The most important, if not the only poisonous spider in this state is *Latrodectus mactans*, the so-called black widow or hour-glass spider. This is a shiny, jet black spider with large bulbous abdomen and long, slim legs, covering a span of nearly two inches. The ventral surface of the abdomen is characteristically marked with red triangular spots in the shape of an hour-glass, although this marking is not always constant. The web is very coarse and irregular; at this time of year one or two egg sacs are frequently found suspended in it, which will produce hundreds of tiny spiderlings. These undergo several moults and will reach maturity next year.

Many observers agree that *Latrodectus* is not only increasing in numbers, but is also changing its habits. Where formerly it was only found in rural communities (the out-door privy seat is the classic location for its web and many cases of arachnidism have been incurred there) it now seems to be invading the cities. We have collected within the past two weeks over one hundred spiders, many of them in garages, basements, sheds, under the steps of buildings around window sills, front porches, etc. A favorite site is in holes in sand or clay banks, also among bricks in brick-yards and similar places.

It seems surprising in view of the great number and wide distribution of these spiders and the unquestioned serious nature of their bites, that so few cases of arachnidism are reported. Bogen (*Annals of Internal Medicine*, Sept., 1932) gives only one case from Colorado. The chief explanation is the fact that the spider never attacks and only

bites when molested. Another possible explanation, and the main reason for calling attention to this condition, is the fact that the symptoms of arachnidism rather closely simulate those of acute intestinal disturbances and it is quite likely that some cases have escaped recognition and the patient even subjected to major surgical operation for ruptured appendix, perforated ulcer, or similar condition. The bite itself is no more than a sharp prick; usually the site of the bite is difficult to find later on. Within an hour or two a numbing pain ascends the extremity bitten which localizes itself in the muscles, causing rigidity, spasm and intense pain. This is particularly true of the abdominal wall, which becomes board-like in its rigidity, although all the muscles are affected. There is slight fever, leucocytosis, usually nausea and vomiting and difficulty in respiration. As stated, the condition is sometimes confused with acute intestinal disturbance. There is, however, no local tenderness and other muscle groups, in addition to those of the abdomen, are affected.

There is evidence that recovery from the bite gives immunity and the authors are at present engaged in an attempt to prepare anti-sera of high potency in laboratory animals. Convalescent serum is employed in Los Angeles hospitals but is not particularly effective.

Anything can be stressed too much. Ever, always, never, and all such extreme words, had best be used sparingly by doctors—considering how little anybody knows.—*Southern Medicine and Surgery*.

Under the oath of Hippocrates you (the medical profession) have always had an N R A code, the N R A standing for "Never Refuse Aid." I fear, however, in these trying times, that many of your patients have a code of their own and for them the letters N R A stand for "Never Reward Aesculapius."—Malcolm W. Bingay, Editorial Director, *The Detroit Free Press*.

*From the University of Denver, Denver, Colo. The authors wish to express their gratitude to Mr. Walker Van Riper of this city for his assistance in collecting spiders.

CASE REPORTS

ACUTE MONOCYTIC LEUKEMIA*

REPORT OF A CASE WITH AUTOPSY

H. W. GREGG, M.D.

BUTTE, MONTANA

In 1913 Reschad and Schilling-Torgau¹ first described a case of acute leukemia clinically little different from other types of acute leukemia but in which the type cell was the monocyte. In 1930 Dameshek² collected and reviewed all cases on record up to the time of his publication. In 1932 Farrar and Cameron³ and Sydenstricker and Phinizy⁴ added cases with discussions of the prevailing trend of opinion as to the derivation of the monocyte from the reticulo-endothelium. Clough⁵ in 1931 collected twenty-two cases and added another. Other cases have been reported throughout the last three years and while it is apparently a rather rare condition, there have probably been many more cases seen and diagnosed but not reported. The comparative rarity of the picture along with some of the interesting clinical and hematological features of the present case seem reason enough for reporting it.

The clinical picture of monocytic leukemia is not essentially distinguishable from that of the other acute leukemias. An aseptic type of fever, sore mouth and gums, anemia, malaise, and inability to resist infection are apparently more or less constant features. Splenomegaly is not a usual sign but was reported in marked degree in the cases of Reschad and Schilling-Torgau¹, Hannema⁶, Merklen and Wolf⁷, and Swirtschewskaja⁸. Slight to more or less marked enlargement of the liver has been reported in practically all cases. Enlargement of the lymph glands has not been a constant feature. The leukocyte count in the reported cases has varied from 1,900⁹ to 416,000⁸. The monocyte count has been variable, but always above normal.

*My very sincere gratitude is due Dr. R. F. Peterson, and Mr. Wendell Peterson of our laboratory for much of the clinical laboratory work on this case, also Dr. Hal Downey of the University of Minnesota Medical School, for invaluable checking of the pathological specimens.

Pathologically the spleen, lymph glands, liver, and bone marrow most often show disturbance, though in some cases the bone marrow appears to be little affected. The kidneys and skin sometimes show marked disturbance. The diagnosis must depend on the finding of the mature or immature monocyte, and its differentiation, especially from myeloblasts.

Much of the clinical history of the present case must be incomplete as this patient refused hospitalization until a few hours before his death and observations were made of necessity at a distance from the hospital without facilities for complete study.

CASE REPORT

The patient, A. H., aged 58, Finnish by birth, was a miner, who first came to me on November 10, 1932. His family history was not significant. His past history included tonsillitis as a child, severe pneumonia at 35, influenza at 43, and nycturia and dysuria in recurring attacks for the last four or five years.

In December, 1929, he was carried home from the mine with what was apparently an acute rheumatic fever. He had been stricken with sudden pain, fever, and stiffness in several of the joints while at work. He was treated at that time by his family physician and was in bed for seven months. Since that time he had been unable to work, and recently had become progressively more crippled. He had lost 60 pounds in the last three years. It is perhaps significant that he came to me for treatment of the arthritis and accompanying pain, and not for any of the acute signs or symptoms of the condition which led to his death in so short a time.

Physical examination on November 10, 1932, showed a moderately emaciated large man who said his weight in health had been 210 pounds. He weighed 150 pounds at this time. His face was red, and the color of his lips and finger nails good. The tongue was dry and coated. The tonsils were infected (pus expressible). The left antrum was cloudy on transillumination and with x-ray. Both eyes were red and inflamed, and the lids everted, the right more than the left. The teeth were out but the gums were sore and spongy. His lungs showed moderately diminished breath sounds over both apices, with a mild high-pitched respiratory murmur more or less diffuse over both apices. His heart was essentially negative except that the rate was 100. Blood pressure, 130/88. The liver was much enlarged, the lower border reaching about one inch below the umbilicus. The spleen was enlarged to palpation and percussion to perhaps five times its normal size. There was moderate lymphadenopathy throughout, most marked in the posterior cervical and inguinal regions. His skeletal system was characterized by generalized arthritic deformity most marked in the hands, feet, and knees. Neurologic examination was negative. The mental state was at first rather depressed but became at times almost euphoric. Wassermann, negative. The blood sugar was within normal limits and the urine negative. Blood culture was negative after seventy-two hours. The temperature was 100° F. by mouth. Other laboratory

reports are given in the accompanying table and will be discussed later.

He refused x-ray treatment and was afraid of a blood transfusion so was put empirically on the salicylates with 1/10 grain calomel t. i. d. Ten days later he felt much better and the medication along with bed rest was continued. He showed moderate improvement until December 7, 1932, when the liver and spleen were apparently about one-third smaller than at first examination. At this time he developed a boil on the right zygoma which was treated surgically and healed rather promptly. On December 15, he was noted to be losing strength rather rapidly. On December 17, he developed an angry furuncle on the left middle finger; this was incised and a glycerine pack applied. The medication was continued. On December 28 his finger was apparently healing fairly well and his general condition was more satisfactory. The spleen and liver were about stationary in size. Adenopathy appeared as at first examination. His temperature from the time of his first examination until now had ranged irregularly from 100° F. by mouth, to 102° F. by mouth. On December 21 the temperature was 103° F. by mouth.

He was complaining of very severe pain over the enlarged right lobe of the liver and it was exquisitely tender. On the 29th of December he began to vomit a great deal and to complain of severe generalized abdominal pain and tenderness. He still refused hospitalization. His fever was continuously high and his generalized abdominal pain was very severe, becoming on January 4, 1933, so excruciating as to require large doses of morphine for relief. On the 5th of January the abdomen was markedly distended and exhibited almost board-like rigidity; no peristalsis was heard. The heart was rapid and there was much moisture at both lung bases. On the 7th of January he finally consented to hospitalization and died in the hospital three hours after admittance.

It is interesting to note that in spite of the marked leukopenia throughout, he developed a leukocytosis before death with a relative and absolute increase in neutrophils caused by the throwing of many young neutrophils into the circulation.

Autopsy was performed one hour after death. The report was as follows. The body is that of a well developed and moderately emaciated male, about 50 years of age. There are moderate arthritic deformities of both hands, feet, and knees. The right eyelid is everted; the right eyeball

shows marked vascular injection but there is no discharge; the pupils are equal and regular. The left middle finger shows a reddened inflammatory area surrounding a small cut. The abdomen is moderately distended. Subcutaneous fat is nearly all absent. The muscles are pale and atrophic. The peritoneal cavity contains 1500 c.c. of moderately purulent fluid. The intestines are markedly distended and adherent to each other by delicate fibrino-purulent membranes. The liver weighs 2050 grams; its dome is adherent to the diaphragm by old adhesions. The liver capsule about the gall bladder region shows marked thickening and presents a white wrinkled appearance. Cut surface of the liver shows a peculiar white mottling. White fibrous-appearing points, each about 2 millimeters in diameter are found throughout the liver. The spleen weighs 625 grams; it is fairly soft and is adherent to the diaphragm and to the stomach; the capsule is thick, blotchy-white, and somewhat wrinkled. The kidneys each weigh 200 grams; they are paler than normal and show a peculiar white blotching throughout. There are several almond-sized nodes along the aorta, and along its bifurcation. The pancreas, adrenals, gall bladder, prostate, and bladder are grossly normal. The appendix is retrocecal and bound down with old adhesions. No apparent cause for the peritonitis is found. There is about 300 c.c. of purulent fluid in the right pleural cavity. There are a few old adhesions at the right base and the right lower lobe is moderately congested. The lungs show marked anthracosis. There are a few old calcified scars in both apices. The heart weighs 350 grams; the valves, muscle, and coronary vessels are normal.

The microscopic evidence of increased activity of the reticuloendothelial system while not too striking, is definite. The lymph nodes show hyperplasia of the sinuses with formation of large free cells. There is also some hyperplasia of the reticulum of the germinal center. (See accompanying microphotographs.) The spleen shows a markedly cellular pulp and large sinuses. There is indication of some increased activity of the general reticulum. In parts of the section there is seen enlargement and proliferation of sinus endothelial cells. There is apparent derivation of large free cells from some of the sinus endothelial cells. In the kidney there is some lymphocyte and plasma cell infiltration and in places collections of large cells probably identical with the leukemic cells seen in the blood. There is some stroma proliferation. The lungs show nothing of importance except for the findings of

LABORATORY FINDINGS

Date	Hgb.	Eryth.	Leuco.	Neut.	Lymph.	Mature and Immature Mono-cytes	Baso.	Eosin	Arneth Index	Anisocytosis	Poikilocytosis
11-10-32		4,426,000	4,600	26%	12%	62%	0	0		No	No
11-21-32	50% (Dare)	4,300,000	3,600	10%	8%	80%	0	0	Normal	No	No
11-29-32	70% (Tallquist)	3,930,000	2,950	12%	42%	43%	1%	2%	Marked shift to left	No	No
12-6-32	50% (Dare)	3,700,000	2,650	22%	18%	60%	0	0	Slight shift to left	No	No
12-12-32	55% (Dare)	3,800,000	4,000	30%	10%	60%	0	0		No	No
12-24-32	67% (Dare)	3,480,000	5,050	26%	30%	44%	0	0			
1-7-32	65% (Dare)	3,860,000	13,200	88%	2%	10%	0	0	Marked Shift to Left		

11-10-32 Blood Sugar—130 mg. per 100 cc.
 11-10-32 Urine—Entirely negative.
 11-10-32 Wassermann—Negative—Kolmer quantitative.
 11-10-32 Blood culture—Negative after 72 hours.

a terminal bronchopneumonia. The Von Kuppfer cells of the liver are perhaps a little large but do not form leukemic cells. There is some increase in periportal connective tissue with destruction of liver cells in the lobule periphery. The bone marrow is very cellular but shows no evidence of reticulum proliferation.

Considering the significant changes in the lymph nodes and spleen, and the moderate changes in the liver and kidneys, the pathological diagnosis of leukemic reticuloendotheliosis or monocytic leukemia may be made.

General Discussion

The case presents several interesting features. In the first place, the marked enlargement of the spleen and liver, with the moderate generalized enlargement of the lymph glands when the patient was first seen, suggested a diagnosis of myeloid leukemia, and throughout there was little to clinically distinguish this case from one of acute myeloid leukemia. The type cell, however, was pretty well distinguished even by the ordinary stains, as being a monocyte and not a myeloblast, and the monocyte was found in all smears and in all forms, mature and immature. In fact, in some of the smears all stages, from the primitive cell to the mature monocyte, could be found. While the monocyte percentage was never over 80 per cent in the general circulation and at times was much lower than 80 per cent, it was high enough at all times to rule out from the blood picture alone the syndrome of Felty, namely, chronic arthritis associated with splenomegaly and leukopenia. As in several of the reported cases, the case presented a rather marked leukopenia until just before death when the leukocytes rose to 13,200 with 88 per cent neutrophils and only 10 per cent monocytes. This change was apparently due to the acute peritoneal process. The case presented from the onset a moderate progressive anemia. The type cell found together with the clinical findings and the clinical course rule out infectious mononucleosis.

Conclusion

A case of monocytic leukemia, with autopsy, is reported. The patient showed a marked leukopenia with a marked relative increase in monocytes and moderate secondary anemia, and autopsy showed definite increased activity of the reticuloendothelial system.

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PUBLIC HEALTH NOTES

Amebic Dysentery

An encouraging note on the control of amebic dysentery has been struck by Dr. G. W. McCoy, Director of the National Institute of Health and a recognized authority on sanitation.

The outbreak of amebic dysentery in 1933, which centered at Chicago, emphasized the fact, well known to special students of the problem of amebiasis, that we do not have sufficient information as to the factors governing the transmission of this disease to enable us to take precisely directed and fully effective measures for its suppression.

The facts at present at the disposal of health officers do not afford sufficient basis for some of the drastic measures which are being put into execution. Perhaps, all things considered, it would not be a disadvantage from the administrative point of view to revert to the state of affairs that existed prior to the Chicago epidemic.

The following statement of facts may aid authorities in formulating any control measures that may be considered necessary:

"There appears to be very little evidence that clinical cases originating in Chicago have led to any considerable spread of the infection in the communities to which the infected individuals have gone.

"Carriers of the *Endameba histolytica* do not appear to be so much of a menace as they

were thought to be; indeed, there is no clear evidence that carriers, even among food handlers, are an important source of infection.

"Control of the spread of the infection by the detection of carriers and their exclusion from food-handling groups does not appear to be practicable on a large scale.

There is no need for isolation of the clinical cases of amebic dysentery beyond such isolation as may be necessary for the benefit of the patient. There is no need for the isolation of carriers.

"When sanitary disposal of feces is practiced, no special precautions need be taken with stools; but where facilities for such disposal are not available, precautions should be taken to prevent contamination of water supplies and the possibility of fly contamination.

"No particular attention need be paid to contacts of either clinical cases or carriers."

The measures that health officers may take with advantage in the present state of our knowledge would appear to be as follows:

Call the attention of physicians to the importance of recognizing and reporting cases of dysentery.

Require the reporting of all cases of dysentery, distinguishing between the amebic and the bacillary types and those of undetermined nature.

Provide facilities for the aid of physicians in making diagnoses.

Inaugurate educational measures among all food handlers to the end that members of this group may become cognizant of the necessity for personal cleanliness, particularly in respect to the washing of the hands after defecation.

Require laboratory examination of feces of food handlers in investigations to determine the source of infection, in order that the significance of this possible source of infection may be ascertained.

Require the elimination of all possible contamination of drinking water supplies by cross connections and similar sources. This applies especially to hotels and public eating places.

It is hoped that the research now being

conducted by the Public Health Service and other agencies may lead to a better understanding of many of the now obscure features of amebic dysentery.

Poliomyelitis

Considerable uneasiness has been manifest throughout Colorado and other states of the inter-mountain district over the epidemic of infantile paralysis now prevailing in Colorado. The usual unfounded rumors have prevailed in Denver following a fatal case of this disease in the person of a girl, aged ten, who succumbed to an invasion of the bulbar type. The city health office advises that there has been but one other case reported and so far as can now be determined there is no danger from children enjoying such swimming pools as have remained open.

In California there has been a total of 1223 cases since the first day of May, but the epidemic is now subsiding and the mortality rate has been low throughout. Dr. L. P. Leake of the United States Public Health Service is cooperating with local officials in a campaign against this formidable infection.

BOOK REVIEWS

Medical Clinics of North America. Volume 17. Number 5. New York Number. Philadelphia and London: W. B. Saunders Co., 1934.

The New York number contains a wide variety of subjects of interest to all branches of medicine. There are clinics on Cardiac Conditions, Perforated Gastric Ulcer, Treatment of Anemia, Relation of the Upper Air Passages to Certain Chest Conditions, and the Treatment of Burns. For those interested in endocrine medicine there are articles on Metabolism in Hyperthyroidism and Hypothyroidism, Treatment of Hyperthyroidism, Salt in the Treatment of Addison's Disease and Pituitary Surgery and Mild Diabetes Mellitus. Renal conditions are discussed in clinic on Tests of Renal Function in Bright's Disease, Diet in Chronic Bright's Disease, and Anemia in Bright's Disease. For the Pediatrician there are clinics dealing with Abnormal Nutritional States in Children, and Vomiting and Convulsions in the New-born.

The relation of internal medicine to the specialties is presented in two contributions: Some Problems Encountered in the Management of Patients with Impaired Hearing and Carbohydrate Metabolism and Cataract. Some of the newer concepts in clinical medicine are discussed in

articles on The Significance of Uric Acid in Clinical Medicine, Dehydration and Medical Shock, and Angiospastic Diathesis.

The number is concluded with a symposium on diseases of the peripheral vascular system, the diagnosis, medical and surgical treatment are discussed. Arteriography and the Modern apparatus and technic for the study of diseases of the peripheral vascular system are included.

A very timely presentation in view of the interest shown in these conditions at the present time.

Medical Clinics of North America. Chicago Number. Index Number. Vol. 17. No. 6. Philadelphia and London: W. B. Saunders Co. May, 1934.

This number of the clinics contains a group of clinics given by the members of the staff of St. Luke's Hospital.

There are several case reports of interesting neurological conditions, a discussion of the Toxic Effects of Hair Dye on Eyes and Skin. Four cases, showing the Effects of Surgical Procedures on the Sugar Tolerance of Diabetic Patients. Three clinics, dealing with bone conditions, Paget's Disease, Myeloma and Spondylitis. One case each, Anemia with Pregnancy, Carcinoma of the Lung, and Hydro-Ureteronephrosis, and a heart case.

Besides this group clinic there is a wide variety of subjects presented from other hospitals including Quantitative Feeding of Patients as a Diagnostic Procedure in Obscure Cases of Hyperthyroidism, Management of Gallbladder Disease. Infant Nutrition: Back to First Principles. Heart Block. Diet in the Management of Nephrosis is discussed; a condition which the reviewer often hears described but rarely sees. Neutropenia, Thrombocytopenic Purpura, and Cinchopen Poisoning make up another group. Oxygen in Acute Coronary Occlusion and two cases illustrating the difficulties in the Differential Diagnosis between Diverticulitis and Carcinoma of the Rectosigmoid are discussed.

LORENZ W. FRANK, M.D.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md. With the collaboration of Francis Gilman Blake, M.D., Yale University, New Haven, Conn.; Vernon C. David, M.D., Rush Medical College, Chicago, Ill.; Dean Lewis, M.D., Johns Hopkins Hospital, Baltimore, Md.; John W. McNee, M.D., University College Hospital, London, Eng.; John H. Musser, M.D., Tulane University, New Orleans, La.; Walter W. Palmer, M.D., Columbia University, New York, N. Y.; Pasteur Vallery-Radot, M.D., University of Paris, Paris, France; Arthur L. Bloomfield, M.D., Stanford University, San Francisco, Calif.; Campbell P. Howard, M.D., McGill University, Montreal, Canada; W. McKim Marriott, M.D., Washington University, St. Louis, Mo.; George Richards Minot, M.D., Harvard University, Boston, Mass.; Charles C. Norris, M.D., University

of Pennsylvania, Philadelphia, Pa.; E. Rehn, M.D., University of Freiburg, Germany; Russell M. Wilder, M.D., The Mayo Foundation, Rochester, Minn. Volume II. Forty-fourth series, 1934. Philadelphia, Montreal, London: J. B. Lippincott Company. 317 pages.

The medical section of this volume consists of three subjects. There is a lucid discussion of "Generalized Edema Associated with Disease of the Gastro-Intestinal Tract," and two case histories. The next subject is presented by a detailed review of "The Pathogenesis of Anterior Poliomyelitis" and is accompanied by an imposing bibliography. "Hereditary Angiomatosis (Telangiectasia) With Recurring Hemorrhages" is, as stated, a bibliography. It describes a formidable collection of related conditions which are so rare as to be only of theoretical interest to the average physician.

The surgical section containing ten contributions occupies the major part of the volume, from University of Freiburg, Germany, contains three of the articles: "Operative Shock;" "Anterior Lobe of the Pituitary Gland, the Thyroid Gland, and the Carbohydrate Metabolism of the Liver;" and "Concerning the Broadening of the Indications for Operation in Exophthalmic Goiter Through the Recognition at the Bedside of a Secondary Thyrogenic Injury to the Liver." The latter discourse stresses the value of blood serum sodium determinations in prognosis, diagnosis, and as an index to treatment.

The Matson brothers of Milwaukie, Oregon, have contributed a detailed and nicely illustrated resumé on the subject of "Operative Collapse Therapy in the Treatment of Pulmonary Tuberculosis," calling particular attention to the neglected method of intrapleural pneumolysis.

The two succeeding articles deal with peptic ulcer: "Indications for Surgical Treatment of Peptic Ulcer, Methods, Post-operative Complications and Sequelae and Their Treatment;" and "Medical and Surgical Aspects of Peptic Ulcer." The latter gives a clear, brief consideration from a comprehensive viewpoint. In another article R. L. Payne, M.D., F.A.C.S., and R. C. Whitehead, M.D., of Norfolk, Va., entitled "Purpura Hemorrhagica (Thrombocytopenia) an Evaluation of Our Present Knowledge" discuss the value of splenectomy.

Earl D. McBride, M.D., F.A.C.S., of Oklahoma City in "Estimating the Extent of Disability," offers a potentially helpful method, and illustrates the subject with charts, diagrams, and examples. "The Crippled Hand," by Isidore Cohn, M.D., F.A.C.S., of New Orleans, receives careful attention with emphasis on careful examination for and appropriate treatment of nerve or tendon injury.

The volume is concluded by the sections Recent Progress in Obstetrics presenting "Toxemias of Later Pregnancy"—a resumé, and Recent Progress in Pediatrics, offering the first half of "Immunization Against the Contagious Diseases of Childhood: Diphtheria, Scarlet Fever, Whooping Cough, and Measles." The two latter diseases are to be considered in the succeeding volume. The subjects are presented fully, including a brief history, subsequent developments and modifications, and the interpretation of results.

From the foregoing it is evident that Volume II justifies the interest of most physicians and especially of the surgeons.

A. M. WOLFE.

An Index of the Scientific Literature of the U. S. S. R. Division of Medicine, 1928. Moscow, Government Printing House, 1931.

After all the wild tales that have gone out of the fabulous land of the Soviets, the present volume coming to us with the re-establishment of diplomatic relations is a vivid proof of the intense scientific and medical activity going on in Russia. The book, comprising close to 1600 pages, gives a list of books and periodical contributions to medicine during the year 1928. The pursuit of bibliography is in itself an index of the scientific level of a country. Prior to the Revolution, says the foreword, endeavors in this field were sporadic and short lived. With the stabilization of the country, scientists desired to emulate the example of other nations in making systematic records of their literary output. The preface particularly mentions Germany and the United States as the outstanding countries in bibliographic development.

The present work is for the year 1928 and lists 11,012 books and articles. Considerable space is taken up by Physiotherapy as well as by Social and Industrial Hygiene. This valuable Yearbook now makes the Russian literature on any medical subject accessible to the American medical profession.

PHILIP HILLKOWITZ.

Modern Clinical Syphilology. Diagnosis, Treatment, and Case Studies. By John H. Stokes, M.D., Duhring Professor of Dermatology and Syphilology in the School of Medicine, University of Pennsylvania, and Professor of Dermatology-Syphilology in the Graduate School; Dermatologist and Syphilologist, The Pennsylvania Hospital; Consultant Dermatologist, The Children's Hospital, Philadelphia; Member Commission on Syphilis and Cognate Diseases, League of Nations Health Organization; Consultant, United States Public Health Service. Second Edition, Thoroughly Revised. 973 Illustrations, 1400 pages. Philadelphia and London: W. B. Saunders Company, 1934.

The first edition of this notable book, published in 1926, was almost immediately heralded as the leading monographic work on syphilis. The second edition is even more comprehensive, valuable and authoritative.

Diagnostic methods, treatment and management of the different stages of syphilis have changed so radically since the first edition that fifteen of the original twenty-three chapters have been completely rewritten. Dr. Stokes and his collaborators have succeeded in presenting a systematized work, combining a vast personal experience with the results from the Cooperating Clinics, and the American Syphilis Investigation. This Cooperative Clinical Group of which Dr. Stokes is a member has studied detailed records of 75,000 cases of syphilis. It is largely due to the results of this study that the treatment of syphilis, particularly early syphilis, has changed so greatly in the past five years.

Although the book is somewhat encyclopedic in nature and contains a veritable storehouse of information on all phases of syphilis, including an extensive reference to the current literature, the volume is still readable.

The book is unreservedly recommended for all practitioners and students who wish to familiarize themselves with recent progress in syphilology. It would also be extremely useful as a reference book in all specialties of medicine.

JOHN V. AMBLER.

Diseases of the Eye. Fourteenth Edition. By Charles H. May, M.D. William Wood and Company, Baltimore. 1934. Price \$4.00.

This book on ophthalmology is designed for the undergraduate student of medicine and for the general practitioner. That it has filled such a need admirably is attested to by the fact that the previous editions have been translated into seven foreign languages and have been used all over the world for thirty-four years. In the present edition the author has brought this already most excellent book up to date.

R. W. DANIELSON.

Transactions of the American Association of Obstetricians, Gynecological and Abdominal Surgeons for the Year 1933. Edited by Magnus A. Tate, M.D., Cincinnati, Ohio, and Arthur M. Mendenhall, B.S., M.D. Indianapolis, Indiana.

This volume contains a collection of interesting and valuable papers on the subjects of obstetrics, gynecology, and abdominal surgery. The address by the president, Dr. Jennings C. Litzenberg, "The Challenge of the Falling Birth Rate," contains instructive data. His address ends with the following paragraph:

"The conservative, in contrast, is he who will not interfere with labor except upon sound indications. He is afraid only of being wrong. He will fearlessly use operative procedures when they are indicated. In short, the true conservative is he who knows how and when, and particularly when not, to be radical."

All of the papers are representative of their specialties and are worth a careful perusal.

CLARENCE B. INGRAHAM.

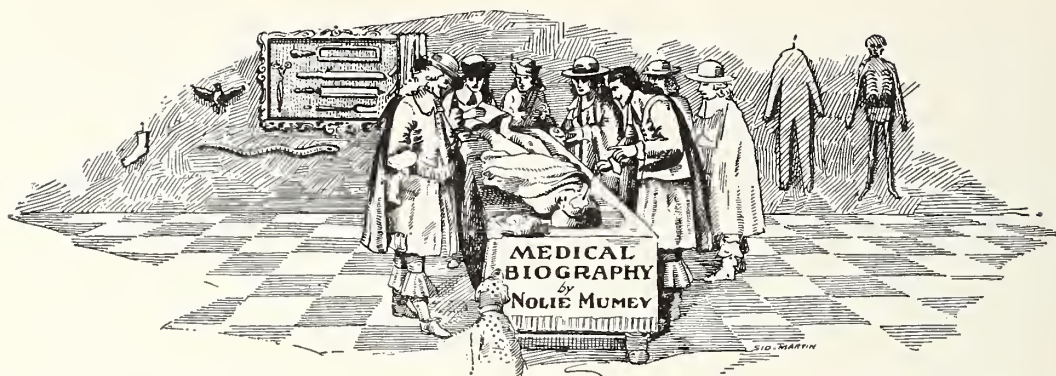
NOTICE!

The Library is eager to secure all volumes up-to-date of *Journal of Clinical Investigation*.

If any doctor who receives this journal will be good enough to present it to the library after he has read it, the gift will be very much appreciated.

Continuance of pain after reduction indicates that all is not well ordered—fragments have become displaced or the dressings have been too tightly applied.—*Edi. in Jl. Med., Feb.*

In adults a systolic blood pressure above 140 mm. in the male or above 130 in the female, when it is more than transitory from physical exertion or emotional excitement, is looked upon as a pathological increase.—L. F. Barker.



MICHAEL SERVETUS

(Continued from June, 1934, Issue)

A short time after Servetus began the practice of medicine he met his former friend and pupil, Peter Palmier, who was then Archbishop of Vienne. He urged Servetus to settle there and gave him an apartment in his own house. He accepted the offer and continued on friendly terms for thirteen years, during which time his arch enemy, Calvin, was maturing plans for his destruction. This was partially accomplished by means of correspondence between the two.

The notes that Servetus added to the edition of Paginus' Bible were mostly confined to the Psalms and the Book of the Prophets. In them he gave his opinions concerning the passages which applied to Jesus Christ. All of the notes were irritating to both Protestants and Catholics; Calvin called them impertinent and impious notes.

All these arguments caused Servetus to determine to publish a third book against the Trinity. In the year 1546, he sent Calvin a manuscript copy requesting his opinion on its merits. Calvin was so incensed at this incident he began a deliberate campaign against the life of Servetus. He would not have been successful if Servetus in his zeal for the truth had not published the *Christianismi Restitutio*.

Servetus had only one avowed purpose throughout this book and that was to bring back to the Christian world what he believed to be the primitive standard of faith which was his reason for calling it the *Restoration of Christianity*. The work consists of seven parts. The first and last are concerned

with the doctrine of the Trinity; the fifth part consists of a series of thirty letters addressed to Calvin on doctrinal subjects.

The author's name did not appear on the title page. M. S. V., the initial letters of Michael Servetus Villanovanus, with the date 1553, appeared at the end of the text.

Strenuous efforts were made by both Catholics and Protestants to suppress this work. They succeeded to such an extent that there were not more than two known copies in existence. In 1791 a facsimile publication appeared. It also is very rare. In the *Christianismi Restitutio*, Servetus first described the lesser circulation of the blood. It is such an interesting account and preceded Harvey's description of the circulation of the blood that a full translation is given:

"The apostolic church is the invitation of the whole to its thresholds, restored to its former condition through a knowledge of God, faith in Christ, our justification, regeneration of baptism, and eating of the Lord's supper. Finally the heavenly kingdom has been restored, after the release from the captivity of wicked Babylon, and the complete destruction of Antichrist with his works.

"We say of the divinity that it must be accepted, and also those things closely joined together, which are really divided. According to a manifold charge there are diversities of administrations and operations. I Corinthians 2. According to charge it is said that a more excellent spirit was in Daniel than in others, Daniel 6, and that many apostles were filled with the Holy Ghost, Acts 2 and 4."

(To Be Continued)

PRELIMINARY PROGRAM

SIXTY-FOURTH ANNUAL SESSION OF THE COLORADO STATE MEDICAL SOCIETY

SEPTEMBER 19, 20, 21, 22, 1934, at COLORADO SPRINGS

Headquarters, ANTLERS HOTEL

To the Officers, Delegates, Committeemen and Members of the Colorado State Medical Society; Greeting:

The Sixty-Fourth Annual Session of the Colorado State Medical Society Will Be Held in Colorado Springs, Colorado, Wednesday to Saturday, Inclusive, September the Nineteenth, Twentieth, Twenty-First and Twenty-Second, Nineteen Hundred and Thirty-Four.

The Board of Trustees Will Convene at Three P. M., The Board of Councillors at Four P. M., and The House of Delegates at Eight P. M., All on Wednesday, September the Nineteenth, and Each Subsequently as Ordered.

The General Scientific Assembly Will Convene at Ten A. M., Thursday, September the Twentieth, and Subsequently According to the Program of The Committee on Scientific Work.

GERALD B. WEBB, M.D.,
President.

Attest: HARVEY T. SETHMAN,
Executive Secretary.

CONDENSED SCHEDULE

(See the Program, following, for details)

All events will be held at the ANTLERS HOTEL unless otherwise specified.

WEDNESDAY, SEPTEMBER 19

- 3:00 p. m.—Board of Trustees.
- 4:00 p. m.—Board of Councillors.
- 5:00 p. m.—Committee on Credentials.
- 8:00 p. m.—House of Delegates.

THURSDAY, SEPTEMBER 20

- 9:00 a. m.—House of Delegates.
- 10:00 a. m. to 12:30 p. m.—General Scientific Session.
- 2:00 p. m. to 4:30 p. m.—General Scientific Session.
- 4:30 p. m.—House of Delegates.
- 8:30 p. m.—Stag Smoker, Jewett Country Club.
- 8:30 p. m.—Ladies' Bridge Party.

FRIDAY, SEPTEMBER 21

- 8:00 a. m.—Operative Clinics at Hospitals.
- 9:00 a. m. to 12:00 noon—General Scientific Session.
- 12:30 p. m.—Golfers' Luncheon, Followed by Annual Golf Tournament.
Place of Luncheon to be announced later.
- 12:30 p. m.—Woman's Auxiliary Annual Luncheon.
- 2:00 p. m. to 4:00 p. m.—General Scientific Session.
- 4:30 p. m.—Bedside Medical Clinics at Hospitals.

4:30 p. m.—Dermatological Clinics, Presentation of Cases.

8:00 p. m.—Dermatological Clinics, Discussion of Findings.

SATURDAY, SEPTEMBER 22

- 8:00 a. m.—Operative Clinics at Hospitals.
- 9:00 a. m. to 12:00 noon—General Scientific Session.
- 12:00 noon to 1:00 p. m.—Final Meeting, House of Delegates.
- 1:00 p. m.—Luncheon for Officers and County Secretaries.
- 2:00 p. m. to 4:30 p. m.—General Scientific Session.
- 6:00 p. m.—Presidential Reception.
- 7:00 p. m.—Annual Banquet.
- 9:00 p. m.—Dancing.

PROGRAM

THURSDAY SEPTEMBER 20

MORNING

(Ballroom of Antlers Hotel)

- 9:00—House of Delegates, second meeting.
- 10:00—Call to Order; Installation of Nicholas A. Madler, M.D., Greeley, as President of the Society.
- 10:15—Fracture Seminar.—H. I. Barnard, M.D., Denver, Presiding.
Fractures of the Neck of the Femur.—Atha Thomas, M.D., Denver.
Fractures in and Around the Ankle.—Fred H. Hartshorn, M.D., Fort Collins.
Fractures in and Around the Elbow.—H. R. McKeen, M.D., Denver.
Fractures of the Spine.—Robert G. Packard, M.D., Denver.

This seminar is being presented for the purpose of showing a few of the commoner types of fracture which if not treated properly will give considerable permanent disability. Each speaker will demonstrate either by lantern slides, moving pictures, or exhibits the recognized lines of treatment of these fractures and the results that should be regarded as satisfactory. It is intended to make the program as practical as possible and to avoid the more scientific phases. A short time will be allotted for questions, answers, and discussion. Practical exhibits in the exhibition hall will further depict the speakers' ideas and during recesses there will be present at the exhibit booths a surgeon who will demonstrate and will answer informally any questions on these subjects.

- 11:15—Discussion.—Opened by H. W. Wilcox, M.D., Denver.
- 11:45—Acute Conditions Simulating the Surgical Abdomen.—William H. Mast, M.D., Gunnison.

Emphasis is placed on various acute nonsurgical conditions which at some time during their course may simulate the surgical abdomen. Certain acute visceral lesions may be associated with parietal pain and tenderness, either as a reflex condition or because of toxemia and secondary neuralgia. Seven case histories of nonsurgical disorders are briefly cited as follows to illustrate the difficulties that may arise: (1) acute anterior poliomyelitis, (2) hemophilia, (3) lobar pneumonia, (4) abdominal herpes zoster, (5) rupture of primary carcinoma of the liver, (6) tabetic crisis, (7) bifid kidney pelvis with dilatation. In all of these cases the symptoms closely resembled those of the acute surgical abdomen, and in several cases emergency surgery was performed.

12:00—Discussion.—Opened by Haynes J. Freeland, M.D., Denver.

12:15—Description of Scientific Exhibits.—D. W. Macomber, M.D., Denver, Chairman, Committee on Scientific Exhibits.

12:30—Adjourn.

AFTERNOON

(Ballroom of Antlers Hotel)

2:00—Presidential Address.—N. A. Madley, M.D., Greeley.

2:20—Aneurism of the Thoracic Aorta.—R. H. Kampmeier, M.D., New Orleans, La. (Late of Pueblo, Colo.)

In the records of the past ten years, the diagnosis of aortic aneurysm has been made in 350 cases. On the basis of unquestioned physical, x-ray or post-mortem findings, 270 cases have been chosen as showing undoubted aneurysm of the intrathoracic aorta. Only the records of hospital admissions were used as the vast material in the out-patient records was not considered complete enough for study. The aneurysms are classified anatomically. The duration of symptoms was from an average of 7.0 months in aneurysm of the transverse arch to 13.7 months in that of the ascending arch. Symptoms and signs are discussed. The accuracy of the x-ray study with correct diagnosis in 96.8 per cent of 224 cases so examined, is found worthy of emphasis. Post-mortem and pathological findings are discussed.

2:45—Discussion.

3:00—Diagnosis of Mastoiditis.—H. I. Laff, M.D., Denver.

This paper deals with some of the prevailing misconceptions in the diagnosis of surgical mastoiditis. Clarification in the differential diagnosis is attempted; the various diagnostic factors are evaluated; atypical forms are considered; and attention is directed to the recently described "petrositis" in its relation to mastoid suppuration.

3:15—Discussion.—Opened by T. E. Carmody, M.D., Denver.

3:30—The Common Cold.—C. E. Harris, M.D., Woodmen.

This paper discusses a problem which has never been solved to the satisfaction of either the medical profession or the public. Considering the tremendous loss of time and money caused by the common cold, it probably deserves more consideration than it receives. Despite general recognition of its infectious character, there seems to have been little improvement in treatment. Its public health aspect is recognized and an effort made to obtain a cross section of opinion among public school officials and members of the Colorado medical profession. While a satisfactory solution is not in sight, it is believed that the best results can be obtained only when a different educational technic is undertaken by the profession. It is particularly emphasized that the instruction of patients must be more definite and specific.

3:45—Discussion.—Opened by Harvey S. Rusk, M.D., Pueblo.

4:00—Traumatic Surgery in Auto Accidents.—Charles W. Streamer, M.D., Pueblo. *The paper includes statistics comparing fatalities of the World War with deaths from automobile injuries and other causes, discusses the effects of automobile injuries on the status of our hospitals, and presents suggestions as to the immediate and later care of automobile injuries.*

4:15—Discussion.—Opened by George B. Packard, M.D., Denver.

4:30—Adjourn.

4:30—House of Delegates, third meeting.

8:30—Stag Smoker and Entertainment, at the Patty Jewett Country Club.

8:30—Ladies' Bridge Party, parlor of Antlers Hotel.

FRIDAY, SEPTEMBER 21

MORNING

8:00—Operative Clinics.—Details to be announced previous day.

(Ballroom of Antlers Hotel)

9:00—The Apple Diet in Treating Diarrheas of Infants and Children.—Hermann B. Stein, M.D., Denver.

Scraped raw apple gives splendid results when fed to infants and children suffering from summer diarrhea. The several theories as to the beneficial action of the apple diet emphasizes respectively the bulkiness of the bland diet, the presence of malic acid and tannic acid, and finally the pectin present which acts as a colloid. Rather than attribute the result to any single factor, it is better to consider the combination of all of these.

9:15—Discussion.—Opened by F. P. Gengenbach, M.D., Denver.

9:30—Early Diagnosis of Peripheral Circulatory Diseases.—Herman C. Graves, M.D., Canon City.

The paper will discuss the importance of early diagnosis in varices, arteriosclerosis, thromboangiitis obliterans, scleroderma, and Raynaud's disease.

Important symptoms include pain, thermal reactions, swelling, color changes, and dermatologic signs. Diagnostic measures include tests, using oscillometry and sphygmomanometry, peripheral nerve block, intravenous vaccines, spinal anesthesia, and hot water. A diagnostic chart will be presented.

9:45—Discussion.—Opened by Clough T. Burnett, M.D., Denver.

10:00—Cancer of the Breast.—Sanford Withers, M.D., Denver.

A statistical study of ninety-five cases treated prior to January, 1931. Diagnosis was proved by section in every case. All cases were personally treated or their treatment supervised by the author. All cases were followed up either by personal examination or through the family physician. In the statistical study all cases lost track of are considered as dead of the disease. The study shows that in the recurrent postoperative case of cancer of the breast 26 per cent remained alive and well three years or more, 13 per cent remained alive and well five years or more.

10:15—Discussion.—Opened by John B. Hartwell, M.D., Colorado Springs.

10:30—A Major Public Health Problem in Colorado.—Edward N. Chapman, M.D., Colorado Springs.

Our total death rate is compared with that of the United States and our neighboring states for the last ten years; the same comparison after deduction of deaths from tuberculosis and pneumonia shows that we are not the healthy state we advertise ourselves to be. Our high death rate from intestinal diseases is the chief remaining reason for this unfavorable comparison. Our sewage disposal in Colorado offers an ideal method for the transmission of intestinal disease. The counties in Colorado with high death rates from intestinal disease are with few exceptions the counties whose irrigation water is contaminated with sewage. Where there is no gross contamination of irrigation, water death rates are with few exceptions low. The author states how California has met the problem, and what the Committee on Public Health of the Colorado State Medical Society has done to inform the people of this state of the situation. Suggestions are made as to the ultimate solution. Charts and maps illustrate the points brought out.

10:45—Discussion.—Opened by Paul J. Connor, M.D., Denver.

11:00—Changing Concepts in Nephritis.—Harry Gauss, M.D., Denver.

The concepts of nephritis have undergone a constant succession of changes since the disease was first studied. The pathologic classification proposed by Volhard and Fahr, which divides the forms of Bright's disease into "nephritis," "nephrosis," and "sclero-

sis," has been accepted in principle, but not in detail. Therapeutic measures in repute today are discussed. Drug therapy and dietotherapy are considered.

11:15—Discussion.—Opened by J. E. Naugle, M.D., Sterling.

11:30—Acute Abdominal Conditions in Children.—Joseph Brenneman, M.D., Chicago; Guest of the Rocky Mountain Pediatric Society.

Importance of the Subject; Difficulty in Diagnosis. The subject will be discussed under four main heads: the obstructions, the hemorrhages, the infections, and certain other conditions. Under the first will be taken up congenital atresia of the esophagus, pyloric, duodenal, intestinal, and anorectal obstruction. Under the second special stress will be laid upon the hemorrhages that occur with ulceration of Meckel's diverticulum. Under the third, appendicitis, peritonitis, and intestinal perforation, with special stress again upon the role of Meckel's diverticulum. Under the last special stress will be laid upon twisted ovarian pedicle. The discussion will be concerned chiefly with diagnosis and treatment and will consist of a running comment on the most important aspects of the various conditions from a purely clinical standpoint.

12:30—Adjourn.

12:30—Golfers' Luncheon, Followed by Tournament, details to be announced later.

12:30—Annual Luncheon of Woman's Auxiliary.

AFTERNOON

(Ballroom of Antlers Hotel)

2:00—Symposium on Obstetrics.—Gerrit Heusinkveld, M.D., Denver, Presiding.

Prenatal Care.—John R. Evans, M.D., Denver.

Normal Labor.—Gunnar Jelstrup, M.D., Denver.

Diagnosis of Complications.—Lyman W. Mason, M.D., Denver.

Management of Complications.—Edward L. Harvey, M.D., Denver.

Postpartum Care.—H. J. Von Detten, M.D., Denver.

The First Week of Life.—James B. Walton, M.D., Denver.

The Obstetricians' Symposium has as its central idea the review of practical considerations especially valuable to the obstetrician in the conduct of home cases. The papers will include a practical routine of prenatal care; the cleanly and efficient conduct of a normal labor case; the diagnosis of the various complications of labor (emphasizing the necessity of early and prompt determination of abnormalities); the modern technic in dealing with complications; postpartum care and its various complications; the physiology, management, and common diseases of the new-born.

It is planned to coordinate all the papers, and to avoid duplication and repetition.

- 3:30—Discussion.—Opened by Lowell Little, M.D., Fort Collins.
- 4:00—Adjourn.
- 4:30—Bedside Medical Clinics; Details to Be Announced during General Session.
- 4:30—Dermatological Clinics; Presentation of Cases.
- 8:00—Dermatological Clinics; Discussion of Findings.

SATURDAY, SEPTEMBER 22

MORNING

- 8:00—Operative Clinics.—Details to be announced previous day.

(Ballroom of Antlers Hotel)

- 9:00—The Dangers of Proprietary Drugs.—Edward Jackson, M.D., Denver.

It has been proved that barbital, and other drugs containing barbiturates, may cause coma and death, or, even when taken in small doses, may cause a drug habit. They are soporific, and lend themselves to self-medication. They are sold and advertised under copyright names that do not indicate any dangerous ingredient. Even when prescribed for appropriate indications, the physician may have little suspicion of danger from them. Legal restriction and every other safeguard should be used to prevent these dangerous effects.

- 9:15—Discussion.

- 9:30—The Role of the Ophthalmoscope in General Practice.—Ralph W. Danielson, M.D., Denver.

This paper, with illustrations, will aim to delineate briefly the ophthalmoscopic eye findings which have a bearing on general systemic diseases.

- 9:45—Discussion.—Opened by Melville Black, M.D., Denver.

- 10:00—The Surgical Management of Malignant Lesions of the Colon and Rectum.—George B. Kent, M.D., Denver.

This paper will deal with the author's experience in the diagnosis and the preoperative, operative and post-operative management of the malignant lesions of the colon and rectum. The mortality, morbidity, and end results will be reviewed. Photographs (of gross specimens) and photomicrographs will be shown by projection.

- 10:15—Discussion.

- 10:30—Heart Disease and the General Practitioner.—Walter L. Bierring, M.D., Des Moines, President of the American Medical Association.

Increasing incidence of heart disease; age periods principally affected; relationship of mortality from heart disease and that of tuberculosis in past thirty years. Significance of marked lowering of percentage rate of heart disease below thirty years of age in last ten years.

Heart disease met by general practitioner in three age periods. In children and young adults valvular af-

fections prevail, recognized principally by physical signs. In middle adult life leutic aortitis and aortic valvular disease are most common. With the aging period comes disease of the coronary arteries, infarctions, with resulting degenerative myocardial changes, and with or without hypertension.

The clinical diagnosis of the last two types is largely dependent on the subjective history, which is often conclusive. Recognition and evaluation of early signs of myocardial disease of great importance, particularly as regards proper management and control. Understanding of different forms of heart disease has engendered a more optimistic viewpoint with reference to prognosis.

- 11:00—Demonstration of Scientific Exhibits.

- 12:00—Adjourn.

- 12:00—House of Delegates, Fourth Meeting.

- 1:00—Luncheon for Officers and County Secretaries.

AFTERNOON

(Ballroom of Antlers Hotel)

- 2:00—Report of the Committee on Necrology.

- 2:10—Summary of actions of the House of Delegates.

- 2:20—Introduction of newly-elected officers.

- 2:30—Endocrine Seminar.—C. F. Kemper, M.D., Denver, Presiding.

Histology.—Hugh Kingery, Ph.D., Denver.

Pathology.—George Zur Williams, M.D., Denver.

Physiology.—B. B. Longwell, Ph.D., Denver.

Clinical Syndromes.—Thad P. Sears, M.D., Denver.

Surgery.—Glen E. Cheley, M.D., Denver.

The last decade records unprecedented advance in the field of the ductless glands. Theories have been replaced by facts of unusual value in the practice of medicine. The seminar will attempt to present some of these facts. The histologic structure of the glands will be reviewed, with emphasis on characteristics common to all endocrine structures. Proved functions will be enumerated, and more common and characteristic lesions will be discussed and explained. Diseases or syndromes, definitely attributable to endocrine dysfunction, will be presented. The correction of hyperfunction by surgery and of hypofunction by hormone medication will be discussed. Practical application will be the dominant note of the papers. The seminar will present the established therapeutic procedures of endocrinology.

- 4:00—Discussion.—The Practical Use of Hormones.—Opened by C. F. Kemper, M.D., Denver.

- 4:30—Adjourn.

- 6:00—Presidential Reception.

- 7:00—Annual Banquet, speaker to be announced later.

- 9:00—Dancing.

REGISTRATION FEE

Members of the Colorado State Medical Society are entitled to register at the Annual Session without fee.

Colorado physicians who are not members of the Society will be required to pay a fee of \$5.00 at the time of registration.

Physicians from other states than Colorado, who are members of their respective medical societies, may register without fee and have the full privileges of the meeting as guests of the Society.

ALL UNDER ONE ROOF!

The Committees on Scientific Work and Arrangements have determined to hold all possible activities of the 1934 Annual Session under one roof. The Antlers Hotel at Colorado Springs will be not only the headquarters hotel, but will house all General Scientific Sessions, all General Scientific Exhibits, all Roentgenological Exhibits, all Technical Exhibits, all meetings of the House of Delegates, Council, Trustees, and Committees. The municipal auditorium, formerly used for the general sessions, exhibits, and House of Delegates, will not be used this year. Most of the Woman's Auxiliary meetings and entertainments will likewise be conducted at the headquarters hotel. Medical and surgical clinics will be held at various hospitals, with ample transportation facilities provided to and from the headquarters hotel, but the skin clinics will be right in the hotel. The stag smoker will be held at the Patty Jewett Country Club.

HOUSE OF DELEGATES

As in most previous years, the opening meeting of the House of Delegates at the Sixty-fourth Annual Session will be convened the evening preceding the general scientific sessions. The House's schedule has been arranged with the hope of providing ample time for the meetings at convenient hours and at the same time avoiding the early morning meetings of previous schedules.

Officers, Delegates and Alternates, Committee-men, and interested members of the Society (who are always welcome to listen in on House of Delegates meetings) should remember the schedule of House meetings. The House itself may order additional meetings if necessary, but barring an excess of business the following schedule will be adhered to:

8:00 p. m. Wednesday, Sept. 19, first meeting (receive annual reports of officers and committees, elect nominating committee, etc.).

9:00 a. m. Thursday, Sept. 20, second meeting (receive and discuss additional reports, including

reference committee reports if ready, general business).

4:30 p. m. Thursday, Sept. 20, third meeting (additional reference committee reports, resolutions, report of nominating committee, general business).

12:00 noon Saturday, Sept. 21, fourth meeting (complete unfinished business, elect officers, etc.).

STAG SMOKER

More fellowship! More rubbing of elbows! More opportunity to slap old friends on the back and shake hands with new ones!

Those oft expressed wishes will come true the evening of Thursday, September 20, at the Patty Jewett Golf Club, Colorado Springs, when the Stag Smoker gets under way. The women folks will have their innings at the same time, over at the entertaining card party conducted by the Auxiliary, so they won't be lonely.

If the smoker program were announced here, it might spoil some of the fun. But rest assured there will be entertainment. Rest assured there will be refreshments. Rest assured there will be plenty, of both. Come prepared to laugh. Come prepared to forget shop talk and the cares of medical practice. Come prepared to have the time of your life. D-O-N'T M-I-S-S I-T!

CLINICS

As previously announced, clinical sessions are being added this year to the usual program of scientific papers.

Operative surgical clinics will be conducted at 8:00 a. m. Friday, September 21, and again at 8:00 a. m. Saturday, September 22, at hospitals to be announced later. Bedside medical clinics will be conducted at hospitals at 4:30 p. m. Friday, September 21. All these clinics will be directed by a special committee of which Dr. C. E. Harris of Woodmen is chairman.

Drs. A. J. Markley, G. P. Lingenfelter, and others are preparing a session of dermatological clinics for 4:30 p. m. and 8:00 p. m. Friday, September 21. The cases will be available for study in special rooms of the Antlers Hotel from 4:30 to 6:30 p. m. and then at 8:00 p. m. there will be a discussion period in the scientific session room for presentation of findings on all the cases.

EXHIBITS

General Scientific, Pathological, X-Ray, Technical

A detailed account of exhibits cannot be compiled at the time this announcement goes to press. Committees and Sub-Committees are at work;

correspondence is afoot; many exhibitors are already preparing material and others have promised to do so. We are assured of ample material to feature this phase of the Annual Meeting.

The exhibits this year will occupy several ground floor rooms on the south side of the Antlers. They will therefore be only a few steps away from the auditorium where the scientific sessions will be held. One feature which is bound to be popular is the exhibition of several movie films. This is a very desirable innovation, as the only films shown in previous years have been of the smaller commercial type.

Look for detailed announcement later!

GOLF TOURNAMENT

The Annual Golf Tournament for members of the Colorado State Medical Society will be held Friday afternoon, September 21, preceded by a luncheon for the golfers. All arrangements for the tournament, as well as arrangements for those who wish to play at other times during the Annual Session, will be made by a special Golf Committee of which Dr. Harry C. Woodward, Ferguson Building, Colorado Springs, is chairman. Golf enthusiasts should get in touch with Dr. Woodward amply before the time of the tournament. Those planning to enter the tournament should have their handicaps certified to Dr. Woodward as soon as possible.

TUBERCULOSIS SESSIONS

An unusual treat in studies of tuberculosis may be had by such members of our Society as can leave their homes a day or two or three earlier and plan to spend the whole week of September 17 in Colorado Springs. Immediately preceding our Annual Session there will be a two and one-half day meeting of the Rocky Mountain Tuberculosis Conference, at the Antlers Hotel. A preliminary program of that meeting will be found elsewhere in this issue of Colorado Medicine.

HOTEL RATES

Colorado Springs hotels have again made attractive rates for the Colorado State Medical Society Annual Session. These rates, as quoted to our Committee on Arrangements, are given below so that members may choose their hotel in advance and secure advance reservations at the rate of choice.

The Committee on Arrangements (Address Dr. John B. Hartwell, 324 Burns Building, Colorado Springs) will be glad to make reservations on request, or members may make reservations direct with the hotels.

The headquarters hotel will be the Antlers,

where virtually all activities of the Annual Session will be conducted. The other hotels quoted are all within easy walking distance of the Antlers.

Hotel—	Without Bath	With Bath
Antlers (headquarters)—		
		Single \$3.00
		Twin-bed Double 5.00
		Three-bed Triple 6.00

Alamo—		
Single	1.50	Single 2.50
Double	2.50	Double 3.50
Triple	3.50	Triple 5.60

Arrow—		
Single	1.00 to 2.50	Single 1.50 to 2.50
Double	2.00 to 3.50	Double 2.50 to 3.50

Cheyenne—		
Single	1.00 to 1.50	Single 2.00 to 2.50
Double	1.50 to 2.00	Double 2.50 to 3.00

Joyce—		
Single	2.00	Single 2.50
Double	2.50	Double 3.00

Kennebec—		
Single	1.25	Single 2.00
Double	2.00	Double 2.50

Rex—		
Single	1.25	Single 1.75
Double	1.50	Double 2.25

ANNUAL SESSION COMMITTEES

Questions, requests, and suggestions relating to the Annual Session will be most promptly handled if addressed to the appropriate officer or committee. Therefore the names and addresses of the chairmen and members of the principal Annual Session committees are listed below under headings indicating the purview of their work:

General program, scientific papers.—Committee on Scientific Work: K. D. A. Allen, 452 Metropolitan Bldg., Denver, Chairman; Burgett Woodcock, Greeley; G. Burton Gilbert, Burns Bldg., Colorado Springs.

House of Delegates and organization business.—Gerald B. Webb, President, Burns Bldg., Colorado Springs; Mr. Harvey T. Sethman, 537 Republic Bldg., Denver, Executive Secretary; Committee on Credentials: John S. Bouslog, Chairman, 246 Metropolitan Bldg., Denver; Harold T. Low, Thatcher Bldg., Pueblo; John A. Sevier, Burns Bldg., Colorado Springs.

General arrangements, hotel reservations, entertainment, banquet.—Committee on Arrangements: John B. Hartwell, Chairman, Burns Bldg., Colorado Springs; W. A. Campbell, Jr., Exchange National Bldg., Colorado Springs; Carl S. Gydesen, Ferguson Bldg., Colorado Springs.

Exhibits.—Douglas W. Macomber, General Chairman, 530 Republic Bldg., Denver. Committee on Roentgenological Exhibits: W. F. Drea, Chairman, Burns Bldg., Colorado Springs; E. A.

Schmidt, Colorado General Hospital, Denver; George A. Unfug, Colorado Bldg., Pueblo. Pathological Exhibits: George Zur Williams, Chairman, Metropolitan Bldg., Denver. Commercial Exhibits: Mr. Harvey T. Sethman, 537 Republic Bldg., Denver.

Clinics.—Surgical and bedside medical: C. E. Harris, Woodmen Sanitarium, Woodmen, Chairman; Dermatological: A. J. Markley, Metropolitan Bldg., Denver, Chairman.

Stag Smoker.—Carl S. Gydesen, Ferguson Bldg., Colorado Springs, Chairman.

Golf.—Harry W. Woodward, Ferguson Bldg., Colorado Springs, Chairman.

Women's Entertainment.—Mrs. John B. Crouch, 20 East Washington Street, Colorado Springs, General Chairman.

Friday, September 21

10:00 a.m.—Annual Meeting of State Auxiliary, Election of Officers.

1:00 p.m.—Annual Luncheon and Program at The Silver Shield; price 75 cents. All doctors' wives invited. Mrs. E. B. Liddle, Chairman. Theater parties in evening.

Saturday, September 22

9:30 a.m.—Meeting of Executive Board, Antlers Hotel Parlor.

6:00 p.m.—President's Reception and Banquet, Antlers Hotel.

Working diligently to widen the commercial uses of ultra-violet radiation, scientists have discovered that the application of these health giving rays to carbonic gas makes the "mixed drink" more sparkling, "zippier" and endows it with all the therapeutic qualities attributed to ultra-violet radiation.

Quick to realize the boon to health that ultra-violet treated carbonic gas (known as CO₂) would be to humanity, especially the millions of children who drink "bottled soda pop" and ginger ale, the Sparkling Carbonic Company of Cincinnati, Ohio, has applied for patents upon this process. A thorough search to discover that whether such a process has been used showed that this company had pioneered a new field.

Through a heavy quartz window made one and a half inches thick to withstand the pressure of approximately 7200 pounds created by the carbonic gas flowing through the cylinder, ultra-violet rays are steadily shot into the gas for prolonged periods.

Tests have proved that better drinks are possible with ultra-violet treated carbon dioxide because the gas, itself, is purer (which results in a lower bacteria count in the beverage), lighter and more active or "bubblier" and gives the bottled or mixed drink a more palatable zest.

Professional and zealous non-professional public health workers have had such a free rein for many years that they cannot realize that our reviled medical profession is really the source for all the principles that they advocate and at the same time are the mechanical and scientific humans who put most of them into practice.—Jackson County Medical Journal, Kansas City, Missouri.

WOMAN'S AUXILIARY

ANNUAL STATE MEETING

Doctors' wives will notice from the following program that the schedule is different from that of previous years. For instance, on Thursday and Friday evenings the Entertainment Committee will hope to have the opportunity of looking after all visiting wives while the doctors are in session.

The banquet will be held on Saturday night instead of Friday.

Plan a little vacation trip of three or four days and stay from Thursday until Sunday.

ANNUAL MEETING OF WOMAN'S AUXILIARY TO THE COLORADO STATE MEDICAL SOCIETY

Host: El Paso County Auxiliary

Colorado Springs, September 20, 21, 22, 1934
Mrs. George P. Lingenfelter, President, Denver

Social Committee—Mrs. J. B. Crouch, Chairman, 20 East Washington, Colorado Springs; Mrs. H. C. Goodson, Chairman of Golf Committee; Mrs. C. S. Gydesen, Chairman of Transportation.

Committee on Entertainment—Mrs. E. L. Timmons, Mrs. H. C. Goodson, Mrs. G. H. Stine, Mrs. C. S. Morrison, Mrs. E. B. Liddle, Mrs. W. K. Hills, Mrs. L. H. Hill, Mrs. F. O. Kettlekamp, Mrs. W. A. Campbell, Mrs. F. T. Stevens, Mrs. J. B. Hartwell, Mrs. C. O. Giese, Mrs. L. W. Bortree, Mrs. T. R. Knowles, Mrs. C. S. Gydesen, Mrs. H. H. Schultz, Mrs. C. E. Harris.

CONDENSED PROGRAM

Thursday, September 20

9:00 a.m.—Opening registration, Antlers Hotel.

3:00 p.m.—State Executive Board, Antlers Hotel Parlor.

8:00 p.m.—Card Party (probably at Antlers Hotel). All doctors' wives invited.



Secretarial Notes and Comment



Edited by Harvey T. Sethman, Executive Secretary

Are You Getting Paid For Your F.E.R.A. Work?

FOR months there have been frequent misunderstandings, disagreements, uncertainties, and sometimes sharp controversies over the medical relief work of the Federal Emergency Relief Administration. Your State Society's Committee on Medical Economics and Executive Office have worked constantly, in cooperation with the State Relief Director and with many county relief administrators, to iron out difficulties, great and small. The Committee on Medical Economics has averaged holding more than two regular meetings a week since the first of January, aside from innumerable informal conferences.

Until now it has been impolitic, if not wholly impossible, to publish to the membership at large the facts of the constantly changing relief picture. Colorado Medicine is issued but once a month, and from six to ten days must elapse between the writing of a report and its actual appearance in the Journal. Too frequently the Committee has known that a decision supposedly sound dare not be published because of the likelihood that it would be amended even before the mailed journals could reach their readers.

But definite results have accrued. Many Colorado counties have F.E.R.A. medical plans in operation. Agreements have been reached in these counties between the local medical societies and the respective county relief administrators. The doctors are getting paid, at the rate of 70 per cent of the county's average minimum fee schedule, for the authorized service they give to persons who are receiving federal relief. In some other counties the medical societies themselves have chosen to make no agreements at all for F.E.R.A. work, preferring to continue their charity work in the historical fashion. In still others, local county politics unfortunately enters strongly into the picture, sometimes to block the wishes openly expressed by both the State Relief Administration and the majority of the physicians. In still other counties agreements are pending or at least are being considered.

Your State Society's Committee on Medical Economics does not necessarily approve of everything that has been done, or will be done, under

the F.E.R.A. plan of medical care. But your Committee has agreed to cooperate with the State Relief Administration in every legitimate manner so long as the best interests of the medical profession are protected. The Committee is watchfully guarding those interests. The Committee has taken part in virtually every county agreement that has been reached. At a cost of hundreds of dollars of State Society funds, mostly spent in telegrams and long-distance telephone conversations with American Medical Association officers and with federal officials in Washington, your Committee had a hand in the removal from office of one national relief official who was openly hostile to the medical profession. Since that time our relations with the relief administration have constantly improved, but should the necessity for another finish fight arise, the Committee is willing and prepared to do battle just so long as the Colorado profession stands unitedly behind the Committee. The Committee and the Executive Secretary appreciate, more than words can express, the solid backing they received during that battle in the spring, from every constituent society in Colorado, and from other state society secretaries in the Rocky Mountain district. The few hundred dollars of your Society's money spent then has returned fifty-fold to the doctors of the state.

F.E.R.A. medical care is basically controlled by "Rules and Regulations No. 7," issued by the national relief director. Your Committee cannot offer hope of amending these rules. They are too lengthy to be published here, but copies have been in the hands of all county society officers for many months. Every member should familiarize himself with them. Subject to Rules No. 7, the State Relief Director and the County Relief Administrators may and do make supplemental regulations applicable to local conditions.

On July 2, 1934, supplemental regulations were issued for Colorado as a whole, to each county administrator. They involve every physician, as will be seen from the bulletin itself. They are reprinted here, in your Committee's belief that they will for many months at least be subject to little change. These are regulations issued by the State Relief Director, not by your State Medical Society. They amount to law so far as the payment of doctors for care given F.E.R.A. patients is concerned. If as and when better arrangements can be made, your Committee will make them and announce them.

The following were received by the Executive Office of the Society on July 10, 1934:

July 10, 1934.

Mr. Harvey Sethman,
Executive Secretary,
Colorado State Medical Society,
537 Republic Building,
Denver, Colorado.

Re: Medical Bulletin.

My Dear Mr. Sethman:

We are sending you copy of our bulletin entitled "Medical," dated July 2, 1934, covering problems on medical care and suggestions as to the proper procedure to be taken in the different County Units of the State.

This enclosure is being mailed to you following the telephone conversation had with Miss van Diest of this date.

Very sincerely yours,

ALICE E. VAN DIEST,
State Relief Director.

OFFICIAL COLORADO STATE RELIEF COMMITTEE

State Museum Building
Denver, Colorado

RELIEF BULLETIN NO. XXVIII

July 2, 1934.

MEDICAL

To All County Administrators and County Relief Directors:

We are sending out a second Medical Bulletin, herewith attached, which is more comprehensive than the first one but which is based on bulletin dated February 23, 1934.

Two copies are being forwarded to you with the hope that you will turn one over to the President or Secretary of your County Medical Society for his use. At no time can any bills be incurred through the County Relief Office without the complete sanction of the County Relief Director in making out the budgets and any emergency where there is the question of the payment of the bill by the Administration.

Medical care should be considered as an item of relief as are other factors. In reports from Washington, we note that 3.8 per cent of the total allotments of any state is the maximum that has been expended for medical care in any state.

We believe that this should represent a maximum of your expenditures toward this work. It may prove beneficial to all concerned if medical care can be worked out on a budgetary basis where it is needed. This is very easily done if the expenditure does not exceed \$10.00. We never can work out any budgets which take into consideration more than a maximum number of hours required in any one month for a man to work.

Very sincerely yours,

ALICE E. VAN DIEST,
State Relief Director.

OFFICIAL COLORADO STATE RELIEF COMMITTEE

State Museum Building
Denver, Colorado

RELIEF BULLETIN NO. XXVII

June 28, 1934.

MEDICAL AND DENTAL CARE

To All County Administrators and County Relief Directors:

The question of medical care is one that is giving a great deal of concern to many relief administrations. Some of the following instructions may be of help to you in solving your problems.

1. The Relief Administration is at all times custodian of the funds and care must be taken that at no time should any type or kind of service exceed the amount of the allotment, be it for direct, or work relief, or medical care.

2. All cases requiring medical attention must come to the relief administration for consideration as to need before bill is submitted by physician or dentist. All cases must be cleared through the county relief office to see whether that individual is a definite unemployed case or formerly a county charge. If the latter, medical care is not given through the relief office.

3. Cases of chronic illness are not to be considered by the relief office since Bulletin No. 7 issued by Washington is specific in stating that care of no longer than ten days to two weeks' duration can be given to any case consecutively.

4. Chronic conditions such as diabetes, tubercu-

losis, cancer, nephritis, venereal disease, epilepsy, etc., are not to be considered as our responsibility.

5. Any type or kind of operation, if it be an emergency, such as an appendectomy, must be cared for at once but the doctor must communicate with the relief office as suggested in **Paragraph Two** above, before bill can be paid. The scale of price for any minimum number of operations which may be performed must be based upon the minimum scale of fees which the Director of Relief in the state office, Miss van Diest has. These fees are not submitted to the counties, but she will give out the rate which is stated for that type of operation through correspondence or wire. These fees have been given to Miss Van Diest through the State Medical Society as the minimum fees for such service. Each one of the fees must be taken at the minimum fee scale less 30 per cent. For example, a tonsillectomy might be \$35.00 and then the rate which we would be able to pay would be \$24.50.

6. We might suggest that there be an impartial Board of Physicians in connection with the Relief Agency who would sit as an advisory group in regard to medical problems. It might be possible that this group of physicians would be willing to give a short period of time each month to diagnose cases without charge. Thus, Doctors X, Y and Z might be willing to give their time one day and Doctors A, B and C another day for an hour. This might be held twice a week or once a week. When the patient is brought before these physicians, they would diagnose them, finding anything wrong, notify a visitor from the Relief Office, who should sit in on the meeting so that the report may be returned to the relief office. The patient will be asked to which doctor he formerly went and this physician is the one to whom the patient will be referred, if all conditions are as is suggested in Section Two. If there is no patient-doctor relationship, use physicians in alphabetical order.

7. The scale of fees for general service is as was suggested by the State Medical Society in a former bulletin sent out, copy of which is attached.

The following is the basic fee schedule for emergency dental operations approved by the Board of Directors of the Colorado State Dental Association and the Denver Dental Association:

Extractions (single)-----	
Simple -----	\$2.00
Difficult -----	5.00
Impactions -----	25.00
Post operative treatment-----	2.00
Nerve Block -----	2.00
Infiltrative Anesthesia -----	2.00
General Anesthesia same as Medical	
Vincent's Treatment (trench mouth), per	
Treatment -----	3.00
X-Ray, per Exposure -----	2.00
Denture Repairs (simple)-----	5.00
Cement Fillings, one surface-----	2.00
Cement Fillings, two or more surfaces-----	3.50
Amalgam Fillings, one surface-----	2.00
Amalgam Fillings (more than one surface),	
per surface -----	2.00

Cases demanding extra work there should be a conference.

These fees naturally are to be figured on a minimum basis with a 35 per cent discount on the maximum fees as far as the Relief Office is concerned.

8. We are not supplementing or taking over the responsibility of either private or public clinics nor the work of the county physician's office, nor the County Hospital in carrying out a medical problem. We therefore do not expect that the amount of money which the County Commissioners have had to expend for medical care should be decreased because of our service on unemployed cases. Our care is not for cases referred from the County Commissioner of the Poor, but for eligible families, now unemployed.

9. Prescriptions for necessary drugs and medicine shall be restricted to the national formulary or the United States Pharmacopeia. Authorizations for medical supplies shall be restricted to the simplest emergency needs of the patient consistent with good medical care. Medicine and medical supplies shall not be issued except upon written request of the physician authorized to attend the person for whose use they are desired.

Bills for drugs shall be listed on the disbursing order giving the name and quantity of each. The formula and number of each prescription costing more than 25 cents shall be submitted with, or made a part of, the pharmacist's bill in order that it receive payment from the Auditor's Office.

Very sincerely yours,

ALICE E. VAN DIEST,
State Relief Director.

**AVERAGE MINIMUM FEES, AS REPORTED TO
THE COLORADO STATE MEDICAL SOCIETY
BY THE SECRETARIES OF CONSTITUENT
COUNTY AND DISTRICT SOCIETIES.**

Society—	Day-time		Night		Normal Mile-Obstet- age-ric	
	Office Call	House Call	House Call	House Call	Way One	Case in Home
*Adams	\$2.00	\$2.50	\$3.50	\$1.00	\$35.00	
*Alamosa	1.50	3.75	5.00	.75	25.00	
*Arapahoe	2.00	3.00	5.00	1.00	35.00	
Archuleta	2.00	3.00	5.00	1.00	35.00	
Baca	1.50	3.00	4.00	1.00	35.00	
*Bent	1.50	3.00	4.00	.50	35.00	
Boulder	2.00	3.00	5.00	1.00	35.00	
Chaffee	2.50	2.50	2.50	1.00	25.00	
Cheyenne	2.00	3.00	4.00	1.00	35.00	
Clear Creek	2.00	3.00	5.00	1.00	35.00	
Conejos	1.50	2.50	4.00	1.00	25.00	
Costilla	1.50	2.50	4.00	1.00	25.00	
*Crowley	2.00	3.00	4.00	1.00	35.00	
Delta	2.00	3.00	5.00	1.00	35.00	
Denver	2.00	3.00	5.00	1.00	50.00	
Dolores, E & W	2.00	3.00	5.00	1.00	35.00	
Eagle	2.00	3.00	5.00	1.00	35.00	
El Paso	2.00	3.00	5.00	1.00	35.00	
Fremont	2.00	3.00	4.00	1.00	30.00	
Garfield	2.00	3.00	5.00	1.00	35.00	
Gilpin	2.00	3.00	5.00	1.00	35.00	
Grand	2.00	3.00	4.00	1.00	50.00	
Gunnison	2.50	2.50	2.50	1.00	25.00	
*Huerfano	2.00	3.00	4.00	1.00	35.00	
*Jackson	2.00	3.00	4.00	1.00	50.00	
Jefferson	2.00	3.00	5.00	1.00	35.00	
Kiowa	1.50	3.00	4.00	1.00	35.00	
Kit Carson	2.00	3.00	4.00	1.00	35.00	
Lake	2.00	3.00	4.00	1.00	25.00	
La Plata	2.00	3.00	5.00	1.00	35.00	
*Larimer	1.50	2.00	3.50	.50	25.00	
*Las Animas	1.50	3.00	5.00	1.00	35.00	
Lincoln	2.00	3.00	4.00	1.00	35.00	
Logan	1.50	2.00	3.00	1.00	25.00	
Mesa	2.00	3.00	5.00	1.00	45.00	
Mineral	1.50	2.50	4.00	1.00	25.00	
*Moffat	2.00	3.00	4.00	1.00	50.00	
Montezuma	2.00	3.00	5.00	1.00	35.00	
*Montrose	2.00	3.00	5.00	1.00	30.00	
Morgan	1.50	2.00	3.00	1.00	25.00	
*Otero	1.50	2.50	3.00	.50	35.00	
*Ouray	2.00	3.00	5.00	1.00	30.00	
*Phillips	1.00	2.00	3.00	1.00	35.00	
Pitkin	2.00	3.00	5.00	1.00	35.00	
Prowers	1.50	3.00	4.00	1.00	35.00	
*Pueblo	2.00	3.00	5.00	1.00	35.00	
*Rio Blanco	1.00	2.00	3.00	1.00	35.00	
Rio Grande	1.50	2.50	4.00	1.00	25.00	
*Routt	2.00	3.00	4.00	1.00	50.00	
Saguache	1.50	2.50	4.00	1.00	25.00	
San Juan and						
Miguel	2.00	3.00	5.00	1.00	35.00	
*Sedgwick	2.00	3.00	5.00	1.00	35.00	
*Washington,						
Weld, Yuma	2.00	3.00	5.00	1.00	35.00	

The above fees should be considered on a 70 per cent fee basis.

*These fees should be established by the Counties with the State Medical Society.

Did You Read This In Your July Issue?

So much interest was occasioned by publication of these A.M.A. principles in our July issue that many requests have come for their re-publication as assurance that every member of the Society sees and reads them. Not only has it been urged that every member read them, but that the principles be publicized to allied organizations such as those of dentists, nurses and pharmacists, and to lay bodies generally. Their importance to the public, to the organized medical profession and the future of scientific medicine cannot be overemphasized.—Ed.

SUCH phrases as "free choice of physician," "family physician relationship," and so on, have filled the literature of medical economics for years. Until the Annual Session of the American Medical Association in Cleveland in June,

however, these terms and their proper place in new forms of medical practice had not found definite pronouncement by the governing body of the national organization.

Many resolutions, some of them half-baked schemes promoted by individuals or foundations not concerned with the welfare of physicians or the quality of medical care, found their way to the House of Delegates of the A.M.A. Several were concerned with setting up some sort of national "plan."

The very contradictions of the many private plans and suggestions themselves formed proof enough to a listener at sessions of the House that no one "national plan" can apply and still uphold the basic principles of medical organization—advancement of the "art and science of medicine and the betterment of public health." What may work in an industrial city like Cleveland or Pittsburgh can not work in the corn fields of Iowa. What might suffice for a health and recreational center like Colorado Springs would be laughable in New York or San Francisco.

The ten principles presented below, though, are to apply to any plan, be it municipal, county, or state. Within the limits of these principles, the American Medical Association gives free rein to its constituent and component bodies to experiment or carry out plans applicable to their peculiar localities. But beyond these principles the A.M.A. will not move; it will not budge an inch.

Officers of our State Society request that this set of principles be read before the next meeting of every constituent county and district society. The principles will then speak for themselves:

1. All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

2. No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.

3. Patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give services.

4. The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

5. All medical phases of all institutions involved in the medical service should be under the professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations

recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

6. However the cost of medical service may be distributed, the immediate cost should be borne by the patient able to pay at the time the service is rendered.

7. Medical service must have no connection with any cash benefits.

8. Any form of medical service should include within its scope all qualified physicians of the locality covered by its operation who wish to give service under the conditions established.

9. Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

10. There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

THE TUBERCULOSIS CONFERENCE

Just preceding the Annual Session of the Colorado State Medical Society next month—in fact within the same week—the Rocky Mountain Tuberculosis Conference will hold its annual session. Like our own state meeting, the tuberculosis meeting will be held at the Antlers Hotel in Colorado Springs.

Those especially concerned with tuberculosis, and others wishing to fill a whole week with scientific meetings, are thus enabled to take part in both meetings. For such reasons, Colorado Medicine here presents the complete tentative program of the Rocky Mountain Tuberculosis Conference.

This program should not be confused with the program of the Colorado State Medical Society appearing elsewhere in this issue.

TENTATIVE PROGRAM ROCKY MOUNTAIN TUBERCULOSIS CONFERENCE

September 17-18-19, 1934
Antlers Hotel, Colorado Springs

"THE BLOOD OF THE FATHERS"

Presented by Local and Professional Players
AUDITORIUM UNION PRINTERS HOME
8:00 P. M. September 17th

ADMISSION FREE

TUESDAY, SEPTEMBER 18TH
MORNING SESSION—9:00 A. M.

CLINICAL SECTION

Ballroom

Dr. Alexius M. Forster, Presiding

A Simple Method of Procedure in the Diagnosis of Pulmonary Tuberculosis—

Dr. Charles W. Mills.....Tucson, Arizona

Comments and Additions

Dr. Robert M. Stith.....Seattle, Washington
X-Ray in the Diagnosis of Pulmonary Tuberculosis—

Dr. R. B. Homan.....El Paso, Texas

Comments and Additions

Dr. E. A. Schmidt.....
.....Colorado General Hospital, Denver
Differential Diagnosis of Intrathoracic Tumors and Pulmonary Tuberculosis—
Dr. Clinton E. Harris.....Woodmen, Colorado

Comments and Additions

Dr. C. F. Taylor.....Norton, Kansas
Congenital Cystic Diseases of the Lung—
Dr. L. J. Moorman.....Oklahoma City, Okla.

Comments and Additions

Dr. G. Burton Gilbert.....Colorado Springs, Colo.
A Modification of the Blood Sedimentation Test in Pulmonary Tuberculosis—
Dr. Phillips Schonwald.....Seattle, Washington

Comments and Additions

Dr. A. Lee Briskman.....Colorado Springs, Colo.
Temperature and Pulse Rate in Pulmonary Tuberculosis—
Dr. C. H. Gellenthien.....Valmora, New Mexico

Comments and Additions

Major Charles Shepard.....Denver

SOCIOLOGICAL SECTION

Main Parlor

Helen L. Burke, Presiding

The Progress in Tuberculosis Control in Kansas—
Dr. Earle G. Brown.....Director Division Public Health, Kansas State Board of Health

Comments and Additions

Dr. N. M. Burnett.....Lamar
The New Mexico State-Wide Health Survey—
Dr. Robert O. Brown.....President New Mexico Tuberculosis Association

Comments and Additions

Dr. J. B. Farley.....Pueblo, Colo.
Public Health Nursing in a State Department of Health—
Speaker to be announced later.

TUESDAY, SEPTEMBER 18TH

LUNCHEON, 12:30

CLINICAL SECTION

Private Dining Room, Antlers Hotel

Dr. Leroy Peters, Presiding

Some Clinical Relations of Allergy and Immunity
Artificial Pneumothorax in Pulmonary Tuberculosis—

Dr. Henry Sewall.....Denver

LUNCHEON, 12:15

SOCIOLOGICAL SECTION

Copper Grove

Christmas Seal Sale Conference.

AFTERNOON SESSION—2:00 P. M.

Joint Meeting of Clinical and Sociological Sections—

Ballroom

Presiding, Dr. Charles O. Giese.

General Considerations in the Diagnosis of Childhood Tuberculosis—

Dr. J. A. Myers.....Minneapolis, Minn.

Discussion

Dr. R. P. Forbes.....Denver
Value and Limitations of the X-ray in Childhood

Discussion

Dr. Carl Mulky.....Albuquerque, N. M.
Unanswered Questions in Childhood Tuberculosis—
Dr. J. B. Crouch.....Colorado Springs, Colo.

Discussion

Dr. W. W. Jones.....Denver
Panel on Tuberculosis Clinics—

Participating
Etta Dobbin, Wyoming; Ruth Phillips, Colorado; Eleanor Kennedy, New Mexico; Dr. O. F. Swindell, Idaho; Mrs. H. H. Holdridge, South Dakota; Helen K. Katen, North Dakota; Dr. L. L. Ward, Pueblo.

BANQUET

Broadmoor Hotel—7:30 P. M.
Dr. Gerald B. Webb, Presiding.

The Future in Tuberculosis Control—

Dr. Kendall Emerson.....Managing
Director, National Tuberculosis Association

The Murphy-Forlanini Controversy—

Dr. James J. Waring.....Professor of Medicine,
Colorado School of Medicine

WEDNESDAY, SEPTEMBER 19TH

MORNING SESSION—9:00 A. M.

CLINICAL SECTION

Dr. Alexius C. Forster, Presiding

Artificial Pneumothorax and Phrenicectomy—

Dr. L. G. Woodford.....Everett, Washington

Discussion

Dr. J. A. Sevier.....Colorado Springs, Colo.
Dr. John Faller.....Omaha, Neb.

Closed Intrapleural Pneumolysis—

Capt. J. H. Forsee.....Fitzsimons Hospital, Denver

Discussion

General

Artificial Pneumothorax in Pulmonary Tuberculosis—

Major Wm. C. Pollock.....Fitzsimons Hospital, Denver

Discussion

Dr. Mumford Smith.....Los Angeles, Calif.
Dr. Frank E. Mera.....Santa Fe, N. M.
Thoracoplasty, Illustrated With Moving Pictures—
Dr. S. C. Davis and Dr. C. A. Thomas.....Tucson, Ariz.

Discussion

Dr. Roff E. McPhail.....Lake View, Washington
Major Thearle.....Albuquerque, N. M.
Behavior of the Diaphragm in Phrenicectomy—
Dr. Herman Schwatt.....Spivak, Colorado

Discussion

Dr. O. M. Gilbert.....Boulder, Colo.
Anorectal Tuberculosis—
Dr. Harry Gauss.....Denver
Dr. A. J. Chisholm.....Denver

Discussion

Dr. Ralph C. Matson.....Portland, Ore.

LUNCHEON

Private Dining Room

Dr. C. O. Giese, Presiding.

Business Meeting

Medical and Lay Organization in the Prevention of Disease—

Dr. N. A. Madler.....Greeley, Colo.
X-Ray Exhibit under auspices of
Dr. J. J. Waring.
Dr. E. A. Schmidt.

SOCIOLOGICAL SECTION—9:30 A. M.

Miss Etta Dobbin, Presiding.

A Study of Medical Relief in Colorado—

Miss Alice Van Diest.....Denver

Discussion

Miss Faith Haines.....Colorado Springs, Colo.
What Can the Social Worker Do About Tuberculosis—
Dr. Velma Spaulding.....Denver

Discussion

Miss Alice Boggs.....Pueblo, Colo.
Expenditure of State Funds for Care of the Tuberculous—
Dr. J. B. McKnight.....Texas

Discussion

Dr. R. H. Kanable.....Basin, Wyo.
Afternoon—Joint Clinical and Sociological Sections, 2:00, Ball Room—
Discussion of the Program of the Federal Government for the Care of the Tuberculous.

MEDICAL SOCIETIES

ARKANSAS VALLEY

Instructive papers and delightful entertainment were combined at the Summer Meeting of the Arkansas Valley Medical Association, held July 14 at Canon City. The program opened at 10 a. m. at the Canon City Golf Club with a paper by Dr. William P. McCrossin, Jr., of Colorado Springs on "Sterility: Diagnosis and Treatment," which was followed by "The Treatment of Eczema Infantile and Adult," by Dr. George P. Lingenfelter of Denver. Following a luncheon at the Club the scientific program was resumed with "Difficult Infant Feeding Cases," by Dr. John W. Ames of Denver. Dr. Fred M. Heller of Pueblo followed with "The Treatment of Nephritis," and the program of papers closed with "Recovery Following Acutely Inflamed Appendix Passed by Bowel Intact," by Drs. Lanning E. Likes and Scott A. Gale of Lamar. During the afternoon Dr. E. C. Webb of Canon City conducted an ophthalmologic clinic at the Penitentiary Hospital. After the program members and guests enjoyed trap shooting and golf, and in the evening a dinner at the Strathmore Hotel, enlivened by Captain Patrick O'Hay of Taos, N. M., who gave reminiscences of a globe trotter and soldier of fortune.

WASHINGTON AND YUMA COUNTIES

The regular meeting of the Washington and Yuma Counties Medical Society was held in Wray the evening of July 2, following a dinner. The entire meeting was devoted to a business session. Three new members were elected, Drs. R. W. Logan and J. B. Yates of Otis and Dr. W. W. Bauer of Wray. The next meeting of the Society will be devoted to scientific papers.

L. D. BUCHANAN,
Secretary.

DELTA COUNTY

(Delayed Report)

Dr. Cuthbert Powell of Denver was the principal speaker at the regular meeting of the Delta County Medical Society held at the Delta House on April 27. Doctors from Mesa, Montrose, and San Miguel counties were present in addition to members of the local society.

LEE BAST,
Secretary.

* * *

DELTA, MESA, AND MONTROSE COUNTIES

(Special and Joint Meeting)

A special meeting of the Delta, Mesa, and Montrose County Medical Societies was held June 28 in Delta to hear the "Symposium on Cancer of the Breast," presented by a symposium team representing the Committee on Cancer Education of the State Medical Society. Dr. J. B. Hartwell of Colorado Springs presented the diagnostic and surgical aspects, Dr. C. W. Maynard of Pueblo the clinical pathology, and Dr. George A. Unfug of Pueblo the radiology. The attendance was good and every doctor present discussed the symposium, following which Mr. Harvey T. Sethman, Executive Secretary of the State Society, spoke on medical economic problems and the F.E.R.A. The meeting was preceded by a banquet at the Delta House.

LEE BAST,
Secretary, Delta County.

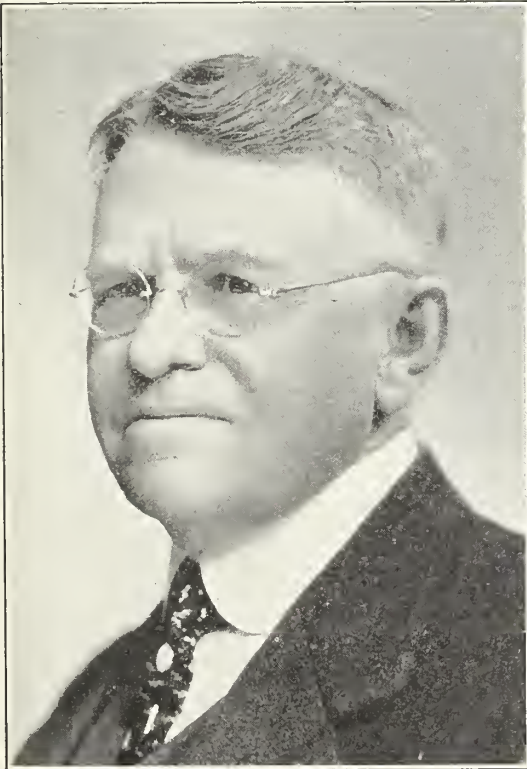
THE AMERICAN COLLEGE OF PHYSICIANS
Philadelphia, 1935

The American College of Physicians will hold its Nineteenth Annual Clinical Session in Philadelphia, April 29 to May 3, 1935.

Announcement of these dates is made particularly with a view not only of apprising physicians generally of the meeting, but also to prevent conflicting dates with other societies that are now arranging their 1935 meetings.

Dr. Jonathan C. Meakins, of Montreal, Que., is President of the American College of Physicians, and will arrange the Program of General Sessions. Dr. Alfred Stengel, Vice President in charge of Medical Affairs of the University of Pennsylvania, has been appointed General Chairman of local arrangements, and will be in charge of the Program of Clinics. Mr. E. R. Loveland, Executive Secretary, 133-135 S. 36th Street, Philadelphia, Pa., is in charge of general and business arrangements, and may be addressed concerning any feature of the forthcoming session.

Obituary



HEMAN ROWLEE BULL

President, Colorado State Medical Society, 1906-1907

On June 21, the Mesa County Medical Society lost its oldest member through the death of Dr. Heman R. Bull.

Dr. Bull had practiced medicine in Grand Junction for forty-five years. He had been critically ill for the past two years and hopes for his survival had been abandoned several months ago.

From 1887 when he was graduated from medical college and came to Grand Junction, until two years ago when he became ill, he was very active.

Dr. Bull had been a member of the staff at St. Mary's Hospital since the founding of that institution. He had played an important part in the social and financial growth of Grand Junction and vicinity.

In the later years of his life Dr. Bull made successive trips to Europe, the Mediterranean countries, Egypt and the Orient.

Herman R. Bull was born October 26, 1862, near Warwick, New York, the son of Sidney and Ruth (Cooley) Bull. There were six children in the family, of whom he was the oldest. The others are Harrison W. and Edmund Bull, now residing at Cedaredge, Colorado; Dr. Raymond Bull of Bethlehem, Pa.; Albert Bull of Redvale, Colorado, and Lena S. Bull, now Mrs. Homberger of Woodward, Oklahoma.

When he was six years of age the family moved to Missouri and he attended the public schools there. He finished the preparatory course at Washburn College at Topeka and entered college in 1880. He took the scientific course and was graduated as valedictorian of his class in 1884. He then entered Jefferson Medical College in Philadelphia from which he received his M.D. degree in 1887.

During that year he came to Grand Junction and began to build up an extensive practice. In 1891 he went East and took a post-graduate course in the Polyclinic hospital in New York City, and in 1902 he was a student in the New York Post Graduate School. From 1893 to 1904 he was a member of the state board of health. He was one of the charter members of the Mesa County Medical Society. Dr. Bull was an active supporter of the Colorado State Medical Society, and was President of the Society for the 1906-1907 term. He was a Fellow of both the American Medical Association and the American College of Surgeons.

On September 4, 1889, Dr. Bull was married to Miss Maude W. Price of Grand Junction. Four children were born to them: Sidney Price Bull of Grand Junction; Miss Winifred C. Bull, a member of the faculty of the Grand Junction High School; Heman Rowlee Bull, Jr.; a student at Jefferson Medical College, Philadelphia, now serving his junior internship in Allentown, Pa. The other son, Leland, died in 1907 at the age of 11 years. The first Mrs. Bull died in 1915, and in 1916 Dr. Bull was married to Miss Ruth Fulwider of Denver, who survives him.

G. C. C.

George Walter Holden

In the loss of Dr. George Walter Holden the Colorado State Medical Society is not alone in its bereavement. His death robs city, state, and nation of one of the finest of their physicians. He was born in Barre, Mass., September 17, 1866, the son of James E. and Harriet Wheelock Holden. His childhood was spent there and he attended the public schools there and Mt. Hermon Academy at Northfield, Mass. He took a business course at Worcester, Mass. He had shown some artistic ability and his parents urged his going to New York to a school of design, but he wanted to study medicine. He had to earn most of his funds for the medical course, so he did not enter a medical school until 1892. He was graduated from the University of Vermont School of Medicine at Burlington, in 1895.

His hospital experience was gained in Boston, and afterward he located in North Brookfield, Mass. But the strain of a large country practice was too much for him and at the end of his second year his health broke. Finding that the cause was tuberculosis, he moved to Colorado in the summer of 1898 and opened an office in Denver the following winter. He realized that recovery from tuberculosis depends mainly on a carefully regulated life. Consequently he systematized his work and gave special attention to his diet and rest. His recovery from tuberculosis covered a period of three years.

During the early years of his practice, he became family physician to Mr. Lawrence C. Phipps, ex-United States Senator from Colorado. That association resulted in the building of Agnes Memorial Sanatorium for Tuberculosis. Dr. Holden was Superintendent and Medical Director of that institution from 1904 when it opened until it closed in July, 1932.

In 1907 he was made a member of the International Congress on Tuberculosis and when this Congress met at Washington, D. C., in 1908, he organized the Colorado Tuberculosis Association and arranged an exhibit for the meeting. As part of that exhibit, he submitted plans for a 100-bed sanatorium for working people. He was awarded a silver medal for those plans.

Dr. Holden was a man with the vision to appreciate future values. This accounts for his having been instrumental in organizing the Colorado Hospital Association, the Colorado Tuberculosis Association, The Denver Tuberculosis Society, The Denver Public Health Council, and the Child Research Council. He was first President of the Colorado Tuberculosis Association and held the office for several years. He was also first president of the Denver Tuberculosis Association and again in 1921. In 1912 he was United States Delegate to the Seventh International Congress on Tuberculosis which was held in Rome, Italy. He was a past president of the Colorado Hospital Association and president of the Board of Control of the Child Research Council since 1927.

He was a fellow of the American College of Physicians, a member of the American Medical Association, The Colorado State Medical Society, The Denver County Medical Society, The National Tuberculosis Association, The International Anti-Tuberculosis Association, The American Public Health Association, The American Hospital Association, The Colorado Hospital Association, The American Congress of International Medicine and The American Clinical and Climatological Association. He was a Mason, a Knight Templar and Shriner. He died July 11, 1934, from coronary thrombosis.

Dr. Holden was deeply beloved for his pleasant, kindly manner, and exquisite gentlemanliness. He was a model of integrity and high ideals both in medicine and citizenship. He did not confine his activities to his profession, but exerted himself in public affairs also, and there is no doubt that these contributed to his final illness. By laying down his life, others have lived and shall live.

W. W. W.

George M. Sands

One of Garfield County's leading physicians passed away on July 9 at his home in Rifle, where he had resided for eight years.

Dr. Sands was born in 1868. His medical education was received at Johns Hopkins, where he was graduated in 1896. He was for ten years a

physician and surgeon at Minnequa Hospital in Pueblo.

Surviving Dr. Sands are his widow; one son, Samuel of Baltimore; one sister and four brothers. The Colorado State Medical Society extends to them its sincerest sympathies.

Wm. F. Spaulding

Trusty friend, faithful, loyal and true
Few of words, yet fully understanding
The unspoken word, the flick of the eye, the
simple gesture;
Ebon companion of those who loved wisdom.

"When the Dear Doctor, dear to a'
Was still among us here below,
I sob my pipes his praise to blow
Wi' a' my speerit,
But noo Dear Doctor, he's awa,
An' ne'er can hear it."

"There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not infrequently; the artist rarely; rarer still the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a thousand embarrassments; and what are more important, Herculean courage and cheerfulness. So it is that he brings air and cheer into the sickroom, and often enough, though not so often as he wishes, healing."

"Blows the wind today, and the sun and the rain
are flying,

Blows the wind rain on the moors today and
Now,

Where about the graves of the martyrs, the
whaups are crying,

MY HEART REMEMBERS HOW!"

"From the lone shieling of the misty island,
Mountains divide us, and a waste of seas—
Yet still the Blood is strong, The Heart is High-
land,
And we in dreams behold the Hebrides."

"Under the wide and starry sky,
Dig the grave and let me lie.
Gladly did I live and gladly die,
And I laid me down with a will.

This be the verse you grave for me:
Here he lies where he longed to be;
Home is the sailor, home from the sea,
And the hunter home from the hill."

THE GREELEY HOSPITAL MEDICAL STAFF.

Dr. William Folsom Spaulding died June 26 at his home in Greeley from coronary occlusion.

Dr. Spaulding was born in Norridgewock, Maine, March 18, 1876. He was an only son and lost both parents while still a child, so throughout most of his childhood and early youth his home was with a maternal aunt, Eliza Folsom McClellan, in Greeley. He attended grade and high schools in Greeley and in 1899 was graduated as a bachelor of science from Colorado College at Colorado Springs. He graduated from Rush Med-

ical College, Chicago, in 1902, and followed with six months' graduate work at Johns Hopkins in Baltimore.

Dr. Spaulding was married in 1904 to Gertrude Caswell, at Omaha, Neb., and thereafter, until 1915, practiced at Kersey, Colo. In 1915 he moved to Greeley, where he had practiced since.

Always an active supporter of organized medicine, having been president of the Weld County Medical Society, Dr. Spaulding also found time in spite of a busy practice to take an active interest in the Masonic Lodge, the Rotary Club, the Park Congregational Church, and other organizations. He is survived by his widow, three children, and two grandchildren.

G. C. Wallace

Dr. G. C. Wallace died July 7, 1934, following several months of rapidly failing health incidental to a malignancy in the chest. He was born in 1877 in Monroe County, Missouri.

Dr. Wallace was licensed to practice in Colorado in 1906, the same year of his graduation from the Denver and Gross Medical College. He was a Spanish-American War veteran, having served with the band of the Second Missouri volunteers. He was a Fellow of the American Medical Association, a member of the Colorado State and Denver County Medical Societies, and was active in the Masonic orders. He also was a member of Omega Epsilon Phi and Phi Lambda Epsilon fraternities, the Mount Vernon and Lake-wood Country Clubs, and the Motor Club of Colorado, his work for the latter organization being perhaps his strongest interest outside of medicine.

Dr. Wallace married twice. His first wife, Mrs. Nellie Lindsley Wallace, died in 1918. He married Miss Louise Weigle in 1919. His wife, a son, Frank L., a daughter, Virginia Louise, all of Denver, and a brother, John K. of Los Angeles, survive him. To these, the Colorado State Medical Society extends its sincerest sympathies. Dr. Wallace's enthusiasm and good fellowship will not soon be forgotten.

WOMAN'S AUXILIARY

BENEVOLENT FUND

It is unfortunate that the Physicians' Benevolent Fund is not usable as yet because there are still cases now of doctors in Denver who have given their time and talent to humanity and are now on charity. Help the Auxiliary build this Fund so that another depression does not find us unprepared.

MRS. T. MITCHELL BURNS,
Committee Chairman.

TO ALL READERS OF AUXILIARY NEWS:

Attention is called to the letter which was sent a few days ago to all members of the State Medical Society and their wives by the Auxiliary State President and the Committee of the Physicians' Benevolent Fund.

Ask your husband to bring it home and talk about it.

MRS. T. M. BURNS,
Chairman of Committee.

In diagnosis the concept of tissue change predominates and the observation of function is of little value if it is divorced from the alteration of structure. It does happen that from the practical standpoint diagnosis leans more heavily upon anatomic changes than upon change of function, and our studies of function serve chiefly to allow us to decide accurately the character and extent of the structural lesions. It has been said that it is more important to gage the functional capacity of the heart and its power to recuperate than to decide to a nicety the character of the anatomic lesion. But the functional capacity of the heart and its power to recuperate depend in large measure upon the character of the lesion. This being true, the best way to study diagnosis is carefully to observe patients, from the data collected to draw inferences about the pathologic changes that are present and then to witness the verification or correction of these inferences at autopsy.—Hamman.

Governor Lehman of New York has signed the O'Brien-Garnjost Bill authorizing the establishment of non-profit group payment plans for hospital care. Following this, Homer Wickenden, General Director of the United Hospital Fund, announced plans for the setting up of a corporation composed of hospital representatives to put the plan into operation in New York City. The payments will purchase only hospital care and services. The patients' fees to their physicians will not be included.

The people already possess a considerable store of medical knowledge—a half-knowledge, of course, but enough to be applied as touchstones of their physician's up-to-dateness and of his interest in them.—The Journal of the Medical Association of Georgia.

Unless you are certain that you know the meaning of an unusual word, look it up before using it. Mitigate means something very different from militate.—Southern Medicine and Surgery.

WYOMING SECTION

President, H. L. Harvey, Casper

Vice President, Chester E. Harris, Basin

President-elect, J. L. Wicks, Evanston

Secretary, Earl Whedon, Sheridan

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A., G. P. Johnston, Cheyenne; Alternates, F. L. Beck, Cheyenne; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne; J. H. Goodnough, Rock Springs; F. C. Shafer, Douglas

Medical Defense Committee: R. H. Sanders, Rock Springs, Chairman

F. L. Beck, Cheyenne;

Earl Whedon, Sheridan

EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Just a Thought or Two For the Other Fellow

IN the September number we expect to print a short life history of our new President, Dr. Herbert L. Harvey of Casper. We hope at that time to show the medical world a good likeness of him.

That the new administration has much to accomplish was forcefully brought out at the Casper meeting and all who know Dr. Harvey believe he will do all in his power for the good of the medical profession and mankind.

The criticism offered by Dr. George P. Johnson of Cheyenne as to the need of more businesslike methods in the House of Delegates, so that special committees can give more time to the consideration of recommendations made by the President, other officers and members, is well taken. Improvements in this line will undoubtedly be made and suggestions will be welcomed, not only from the Councillors but from any member. More time must be given even if we have to add an extra day and devote it all to business in the House of Delegates. Ex-President Beck pointed out certain changes that might be an improvement and no doubt others have good ideas to suggest. Such suggestions should be made to the officers as soon as possible so that better plans can be made for the meeting in Lander.

Every year our Society has made improvements and when you consider that with so few members we do have such good meetings we all realize it is the fine spirit of membership that makes them so. The out of the state men who attend our meetings

all speak of the hospitality and good fellowship shown at our conventions. Dr. W. W. King, President of the Denver County Medical Society, sent the following verse after attending the Casper meeting and inasmuch as no quotations were used, credit it to the genial gentleman from Colorado.

A state line

Is hard to find;

It's in your mind.

Just a rope of sand

In cordial Western Land

Give me your hand.

That is the spirit and fine feeling our men have for our neighbors. The distinguished visitors were Drs. Adolph Sacks and J. Jay Keegan, Omaha, Nebr.; V. A. Hutton, Florence, Colo.; Arnold Minnig, W. W. King, D. W. Macomber, G. P. Lingenfelter, Harvey T. Sethman, Mrs. Nolie Mumey, Miss C. Bray, all of Denver, Colorado, and Dr. Gordon Davis of the U. S. Public Health Service at Hamilton, Montana.

E. W.

The Casper Meeting

TIME does not permit a writeup of the Thirty-first Annual Meeting just held at Casper, Wyoming.

We do print the Presidential address and request that all members carefully consider the suggestions made. Dr. Beck gave the State Society a great deal of his time and his address is well worth reading even if you did hear him deliver it at Casper.

The proceedings of the House of Delegates and reports of the officers and com-

mittees will appear in the next issue of Colorado Medicine. Our only regret is that we can not, on account of the expense, have shorthand notes made of all the spirited discussions that follow the papers. Perhaps some day we can do this.

We wonder how a plan of taxing the absent members, say \$5.00 each and using this money for a complete report of our meetings, would work. We admit we never heard of such a plan, but it might be a fine thing for those who cannot come. It certainly would add a great deal to our records and to the reports in Colorado Medicine. This is one thing we might think about and discuss at Lander next year.

E. W.

An Accident

AN unfortunate accident occurred at the Casper convention Monday evening, but the ones involved were fortunate in their escape. The Natrona County Medical Society was entertaining the delegates and their families at a 7:30 o'clock dinner at the Goose Egg Inn, which is located on the Casper-Rawlins road about twelve miles west of Casper. The day had been very warm, not only in Casper, but everywhere else except high up in the mountains. The doctors were tired and the drive up the Platte river was taken by all with pleasure. Everyone was enjoying the view and cooler breezes as they moved toward the mountains. Then the unexpected happened. Cows were in the road at the bottom of a steep short hill. The first cars stopped, others were close behind and quicker than it can be told Dr. and Mrs. Paul Reed, in a new sedan, came over the top of the hill only to see the road blocked. The brakes were applied, but took unevenly and their car skidded sideways into the rear end of Dr. Beck's car. Dr. Beck, President of our Society, Mrs. Beck and son and daughter were the occupants.

Considerable damage was done to both cars, but fortunately no serious injury to any of the occupants occurred. Mrs. Reed was badly shaken and was taken to the

Casper Hospital where x-rays were made of her back, but the plucky little lady snapped out of it and came smiling along the next day. Mrs. Beck and children were also badly shaken but not seriously hurt.

We all felt very glad and thankful that our friends escaped without being seriously injured.
E. W.



Protect Your Car

DR. W. K. MYLAR of Cheyenne put his car in a garage at Casper Sunday afternoon, July 15. He left his golf clubs, a camera, gun and a few other articles in the car. When he returned to get some of these the car and all it contained was gone. Car thieves walked into the garage in broad daylight, picked out the car that they wished and while the garage men were busy placing new arrivals these thieves drove the Mylar car up to the front door.

They compel you to leave the keys in your car so the cars can be moved in the garage—perfect arrangements for a perfect crime in auto stealing as this turned out to be.

When the car about to be stolen approached the front door the driver suddenly gave it all the gas it would take and shot out the front door into the street before the eyes of the dumbfounded garage employee. The trick was turned, the thieves were on their way and Dr. and Mrs. Mylar were afoot.

The lessons that can be drawn from the above are:

1. Under the present customs and laws your car is never safe even when in a paid garage.
2. Theft insurance is the only protection and should be carried by all auto owners.
3. If the garage man refuses to assume responsibility against theft the owner should insist that if the garage operators want the keys left in order to move the car then the garage owner must put the keys in his safe. If the keys are removed and placed in a safe thieves could not pull off such a trick. If the garage operators do not provide a safe, take your key with you until they do have safes provided for this protection.

We all hope the car will be recovered, but even though it is there is not one chance in ten that the contents will be found. There is also the worry and inconvenience caused by the loss that can not be estimated in dollars and cents. If the garage man will not protect your car, then protect yourself.

E. W.



We Will Miss Them

Since our last meeting, eight of our brother physicians of Wyoming have passed to the Great Beyond. Only one of these had lived to a well-ripened age, and he had been sent to Wyoming to die of tuberculosis more than fifty years ago.

Several of the others, as we are accustomed to look upon mundane matters, were cut down in the prime of life when their plans for the future were largely in the making.

Nearly all were members of our Society. All had been faithful to their trust and worthy laborers for their fellow men. They were Dr. Albert E. Brownrigg of Sheridan; Dr. C. O. Larson, Superior; Dr. John R. Nagle, Worland; Dr. E. F. Scheidegger, Green River; Dr. Edward R. Schunk, Sheridan; Dr. Albert B. Tonkin, Riverton; Dr. Wm. A. Wyman, Cheyenne, and Dr. W. W. Yates of Casper.

THE EFFECT OF COOKING ON VITAMINS IN FOODS

Cooking may destroy the vitamins in foods either by heat or oxidation or they may be dissolved out in the cooking water. The exact extent of these losses, explains the United States Bureau of Home Economics, depends upon the length of time of cooking, upon the presence of air or dissolved oxygen, and upon the solubilities of the vitamins concerned.

Vitamins B, C, and G are readily soluble in water. Vitamin C is easily destroyed by long-continued heating, but undergoes little destruction when heated at the boiling point of water for as long as one hour. But vita-

min B and C are more rapidly destroyed in an alkaline medium than in an acid medium.

Vitamin A is only slightly soluble in water and is not readily affected at the ordinary temperatures of boiling and baking. It is destroyed, however, at higher temperatures such as those used in frying. It is also destroyed when heated in the presence of oxygen. Vitamins D, G, and E are fairly stable in heat and are not destroyed at ordinary cooking temperatures.

The value of any cooked food as a source of vitamins essential to the maintenance of good health depends largely on its original value in the natural state. Tomatoes remain a good source of vitamin C even after they have been cooked. This is explained, says the bureau, by the fact that during the cooking the acidity of the tomatoes protects their vitamin C content to a large extent.

In general, the destruction of vitamins is less when foods are heated at high temperature for short periods than when they are heated at low temperatures for long periods. There is also less loss when a small quantity of water or no water at all is used.

If any cook water is left the Bureau suggests that it should be used for gravies and soups, unless it is so strongly flavored that this is out of the question. Steaming is one of the preferred methods for cooking since the time required is short and the amount of water used is small.

Mineral salts are not destroyed by heat, but they are dissolved in "pot liquor" from cooked vegetables and in the liquor of canned vegetables. Even the moisture condensing in the bottom of a steamer contains mineral salts in solution. Baking in the skin or in a casserole are cooking methods which best conserve the minerals and vitamins.—United States Weekly.

Much unwarranted criticism of physicians may be laid to the fact that each man's health is to himself "so emotional and personal an affair" that he can scarcely judge the doctor with disinterested intelligence. A throbbing earache will warp the soundest judgment.—The New York Times.

PRESIDENTIAL ADDRESS*

F. L. BECK, M.D.
CHEYENNE

I wish to congratulate my fellow physicians upon the fact that you are holding to the lofty principles which have guided the ideals and been the inspiration for the leaders in medicine throughout the ages; that you have not allowed the sordidness of the tasks of trying to heal the lepers of society to blind you to the high and holy duty of ministering to the physical needs of our fellow men; that the constant effort to provide for your own families has not dimmed your ambition to render service where service is needed; that though the wolf of necessity may have come close to the door the high purpose which actuated you when you decided to study medicine has kept you firm when temptations came to make easy money by unprofessional methods.

It is encouraging to know that not more than five or six men have felt compelled to look for greener fields, and these were men who had not been in Wyoming long enough to establish a clientele. A few of our members are now, or have recently been, doing postgraduate work, some in the United States and some in foreign countries.

I am sorry to report that it has seemed necessary for one county society to discontinue the membership of one man under its jurisdiction.

The physicians of five counties in one corner of the state have united to form the Southwest Wyoming Medical Society. Long may it live! In this connection I call the attention of the House of Delegates to the latter part of Article VII of the Constitution which provides "for the organization of such Councillor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies." This paragraph would seem to provide that for administrative purposes each county, so far as practicable, should have its own organization, but that several county societies may

unite for the promotion of better professional interests.

The importance of county organization has been seen in the F.E.R.A. and C.W.A. work. Of course, local conditions may make this impossible. For instance, one Wyoming county has only one physician; one has two; three have three each; one has only four. It is gratifying to report that the advisory committee working with the President of this society in the interests of federal medical relief has been able to secure a modification of the fee bill for that work to take effect on August first, the new rate to be 75 per cent instead of 50 per cent of the usual minimum fee. In this connection it may be said that if you are having difficulty in having emergency cases which are now on relief cared for on this plan it is probably through lack of cooperation on the part of your county supervisors or your county relief secretary. If you are having difficulty in the collection of your bills, it is probably because you have been indefinite in stating what you have done for your patient or have not made your charges according to schedule. In either case delay is occasioned by the efforts of the auditors, who are not medical men, and who cannot tell from your report, for instance, when you say you removed a growth from behind the nose, whether you removed an adenoid mass, a nasal polyp, an osteoma or a malignant tumor for which the fees might be very different. To say that you did a number of minor operations on a case of septicemia may mean to the auditor only that your operations were mere incidents in the dressing of septic wounds and required no special skill or time above that of the regular visit, unless you make some explanation. I am assured, however, that if your reports are properly made, specifying why your work was necessary, and just what you did, in terms and at fees mentioned in the fee schedule your bills will be allowed and your check will be received in short order. Should your case not be provided for in the sched-

*Delivered before the Thirty-first Annual Session of the Wyoming State Medical Society at Casper, July 16, 1934.

ule, make mention of the fact in your bill, be even more particular in stating what you did and why, tell what you think the fee should be—making it correspond to others in the schedule—and you may be sure the case will be given prompt consideration.

The new schedule will include many more items such as x-ray work, consultation, etc. If you have others in mind which should be added, make a note of them and pass them forward. Bills approved for the month of May amounted to \$4600 and for June, \$6000.

All this leads us to the point that we should have a Committee on Medical Economics whose business it should be to study the subject in all its phases, to keep in close contact with the like committees of the American Medical Association and of the other states, and to make recommendations to this Society. During the temporary existence of the F.E.R.A., the Chairman of this committee, or some other active member to whom should be delegated some authority, should live in or near Cheyenne, so that frequent conference with the Federal Relief office can be had without expense. This Committee should be provided with some funds for carrying on correspondence with the members and with other like committees.

I would again call your attention to the incongruity of Sec. 2 of Chapter II of our Constitution which provides that the President, on petition of five delegates or ten members, must call a special meeting of the House of Delegates or even of the whole Society. It should never be too difficult to secure a special meeting of the House of Delegates in case of need, neither should it be so easy that a few members for some slight excuse can compel the personal loss of time and money of the entire membership of this House which is entailed in even the shortest possible session.

I would recommend also the amendment of Sec. 3 of Chapter IV of the By-Laws by striking out the words "five delegates," and inserting in their stead the words "a majority of all the members making up the House of Delegates," so that the section shall read, "a majority of all the members making up the House of Delegates shall constitute a quorum."

Our thanks are due the Committee on Public Policy and Legislation for their efforts to boil down the legislation asked of the 1932 session of the legislature and then insisting on getting all they asked for. We were doubly fortunate in the election of three physicians and one dentist to that legislature.

Our appreciation is due Governor Miller for his active interest in everything pertaining to health and sanitation conditions for the people of Wyoming. Particularly to be mentioned has been his disinclination to adhere to party lines in appointment of men to the medical boards and county health offices.

I think the best physicians, as a rule, are the ones who read the most, work the hardest, play the best. By reading, I do not mean simply the study of the daily newspaper, advertising and all, nor the business gazette, nor one's church paper, nor his favorite medical journal, nor all of these combined, necessarily—but more and beyond all that. By the way, have you recently read a recent history of medicine? If not you would be delighted with Pool and McGowan's "Surgery 100 Years Ago," Clendenning's "The Human Body," and his "Behind the Doctor," written for lay readers as well as the profession. Cushing's wonderful papers as published in "Consecratio Medici" and "The Doctor and His Books" are most interesting.

By the doctor's play I mean his avocation, whatever that may be. It may be tennis or golf, gardening or flowers, riding or ranching, but it should be his play and that only, if he is to practice medicine.

And we should not forget that there is a business side to the practice of medicine, too. Do we know how much work we have done this year, and last? Do we know what our collections have been, and how much has gone to charity? Have we separated the deadbeats from the worthy poor?

Most important of all, are we cherishing the ideals which keep us sympathetic to the needs of suffering mankind? If we are doing this we will not neglect keeping ourselves fit for the task.

IS INVESTING A SCIENCE?

Investing is a science—but far from an exact science. Many years of careful study and observation are necessary before one can expect to qualify as an authority.

Unfortunately, investing is a field of endeavor that seems to generate unbelievable numbers of "experts." Almost anyone who owns a few investments, and many who do not, will give you "expert" advice free at any time. Most investments are bought on this sort of advice. A Chicago bank once ran a full page ad beseeching investors to come in and ask about securities before purchasing, for their records showed that over 90 per cent of the inquiries that came to them after the purchases had been made.

Investment dealers are in much the same position that doctors would be in if their pa-

tients insisted upon prescribing for themselves or taking the same treatment or medicine that a neighbor had taken for possibly an entirely different condition. Just as with medicine, some securities are suitable for some people, but entirely unsuited for others. A real investment expert will endeavor to give you the securities you should have commensurate with your other investments, your business, your age, your obligations, etc.

Off-hand advice from spontaneous "experts" is apt to prove about as beneficial as medicine selected from the cabinet in the dark.

Why not go to an investment banker who has had years of experience and a good record, and let him work out a plan for you?

MALCOLM F. ROBERTS.

Doctor ——— what about Age 60?

Doubtless:

You have provided for your wife through life insurance.

You have provided for the education of your children

But:

What have you provided for yourself at age 60 when your earnings will begin to decrease—when you may wish to retire, take things easy and enjoy life?

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We regret to announce the recent death of Dr. G. Walter Holden, who was one of the organizers of the Colorado Hospital Association and for several years acted as its president. It was during Dr. Holden's tenure of office that the Colorado Hospital Association developed into an organization which gained national recognition and became as active a society as any of those found in the various geographical sections. Dr. Holden was always interested in problems of all hospitals, even after his retirement from the superintendency of the Agnes Memorial Sanatorium. His loss will be greatly felt by members of the Association.

* * *

The Parkview Hospital, Pueblo, Colorado, announces that it has discontinued its training school.

* * *

The annual meeting of the American Hospital Association will be held in Philadelphia, September 24 to 28, 1934. Already a great many Colorado people are planning to attend. The Association promises to consider more important hospital problems than ever before.

* * *

The American College of Hospital Administrators plans to meet on September 23, 1934, at the Ben Franklin Hotel, Philadelphia. A Convocation Program will be held in the evening, at which several new Fellows will be admitted.

❧ ❧ ❧

THE Chief of Staff of a certain mid-western hospital once upon a time called attention to some recent changes in the By-Laws of the Staff which ended with the will voluntarily resign my membership in the Staff, considering myself unworthy the honor."

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He then said, "If I had written this pledge I should have added the following—but I did not write the pledge:

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"I will give each patient his just due—a careful study of his case, with all the necessary assistance from laboratories and counsel with my fellows. I will avoid undercharging as unjust to my fellow practitioners, and overcharging as unjust to my patients.

"I will hold the profession of nursing as sacred to my own, and under no circumstances will I compromise the character or reputation of a member of that profession.

"I do not and will not perform criminal abortions. I refuse to follow the crowd, the exploiter and the grandstander in my practice. If tonsillectomies are the vogue I will not believe that every tonsil must be removed; if cesarean sections are the rage I will take pelvic measurements even more carefully; and I will never concede that any large percentage of women, married or single, must have a dilatation and curettage.

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"Should the time come when I cannot cheerfully subscribe to all of the above I

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ECONOMIES NURSES CAN MAKE*

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In this age of transition and depression the question that is vital and paramount in the minds of financiers, educators and professional people is economy, whether it be economy of money, of time, or of procedure. In our hospitals this problem of economy is a matter of concern to various groups of people. First, there are those for whom the hospital exists, the patients; second, those who are caring for the patients, such as doctors and nurses; and in the third group we include the remainder of hospital personnel. In this paper it is my purpose to deal with a part of the second class, namely, the nurses, and to call attention to a few typical instances in which economies can be practiced by them without lessening the care or comfort of the patient.

Good nursing is closely related to good housekeeping. Hence, early in her education, the nurse should be taught the value of equipment and the necessity of keeping it in good condition, as well as the method of using hospital supplies to the best possible advantage. There must be developed in her a sympathy and an interest in the economic problems of hospital management and a spirit of whole-hearted cooperation with the hospital staff in these matters, also a conviction that the welfare of the institution depends in large measure upon this spirit of cooperation.

There are many ways in which a careful nurse can practice economy, and they will usually add to the comfort of her patient rather than detract from it. The young woman who has had to face the difficulty of making ends meet in her own home will have a sympathetic understanding of the household problems in hospital administration and will do all in her power to eliminate unnecessary costs.

Let us accompany a conscientious nurse in her daily rounds and note the opportunities which she uses to prevent waste and

destruction. She begins practicing economy in her own room, for she takes care that the window is closed whenever she leaves for any length of time. Snow and rain destroy window sills and polished furniture. Electricity burns hospital money, and so she puts out her light with promptitude. As she goes on duty, she notices along the corridors lights burning unnecessarily and makes it a point to put them out. Several patients, too, have lights they do not need. With a cheery "Good morning," she enters their rooms, raises the curtains, and turns out the lights. One patient calls her attention to a leaky radiator. She promptly reports this to the head nurse. An early repair prevents a ruined floor and ceiling. It is now time to prepare the breakfast tray. Here our nurse is careful to make the tray attractive and to serve only those foods, and the amount of them, which she is sure the patient will eat. She removes the butter from some trays, since these patients do not use it for the morning meal. Is she neglecting her patients in thus omitting from their trays those items of food which she had learned they do not like? Not at all! Indeed, experience has taught her that undesired food persistently served is an annoyance, and often tends, by its unattractiveness, to the individual taste, to lessen a patient's appetite for other dishes.

When preparing for the bath and morning care, precaution is used to protect the table from soap and alcohol. How little effort is required for such care, and yet the lack of it may ruin a good piece of furniture. Use of linen is her next careful consideration. The special who changes the entire bed twice a day does not add to the patient's comfort, but she does add considerably to the hospital costs, both in the laundry and in the deterioration of material produced by unnecessary washing. Most hospitals supply daily one each of the following: sheet, draw sheet, pillow case, bath towel, face towel, and wash cloth, and under ordinary

*Given at annual meeting of the Colorado Hospital Association Meeting, Nov. 16, 1933.

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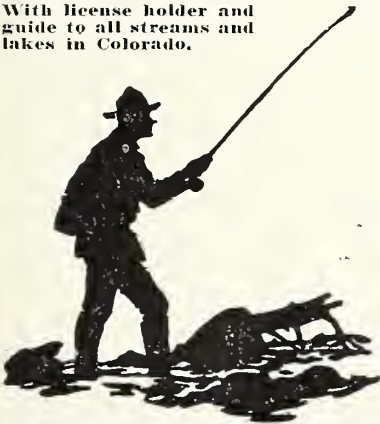
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circumstances this is ample for comfort. Anticipation and close observation at regular intervals in involuntary patients, the careful use of rubber sheets and pillows and pads, the prevention of stains by cautious administration of medicines, and the immediate removal of unavoidable stains are but a few of the precautions which our thoughtful nurse will exercise. The linens that are used injudiciously to dust or wipe up spilled material as well as stained linens are always objectionable and necessitate a new supply resulting in an uncalled-for extravagance.

The 'phone rings. She answers and receives a message for the head nurse. She is tempted to write the message on a piece of paper before her, but just as she begins to do so, she notices that it is a piece of graphic chart paper, the cost of which is a cent and a half per sheet. So she uses instead the scratch pad provided for that purpose. She then goes to the service room to care for the utensils she has been using, drying them thoroughly to prevent destructive rust and stains. The sterilizers, expensive hospital equipment, are important objects of interest. She makes sure that there are no possibilities of their boiling dry; instruments and other equipment are given proper care and prepared for sterilization in the autoclave. Bacteriologists today tell us this is the safest and best method. Dry sterilization also prevents such accidents as burning catheters and rubber tubing and the breaking of glassware.

Two dripping faucets attract attention. One she turns off tightly, the other needs repair, and she reports it at once, for dripping faucets increase water bills. She recalls an incident in which two gallons of water was collected in a few hours from a dripping faucet.

Assisting the doctor with surgical dressings is the next duty which awaits her. She uses only the amount needed, preventing unnecessary waste. The extravagant use of gauze readily runs into money. With forethought she has prepared special dressings for drainage cases and has the adhesive in lengths ready for use. So much waste is caused when strips are longer than is nec-

essary. In making up solutions, too, she is careful to prepare only the required amount.

As she prepares the midday meal, and indeed in all serving of trays, the same precaution is observed as at breakfast, and amounts are measured in accordance with the patient's needs and desires. She remembers two of the patients who do not like the dessert on the day's menu. If it is served, it will just be returned and wasted. Accordingly she prepares, from fruit she has on hand, some little thing that will satisfy the sick persons and prevent waste. Of course, there is no intent of denying anyone what he needs, nor on the other hand of encouraging foolish and extravagant whims, but little acts of practical thoughtfulness contribute greatly to the happiness of patients as well as to good management.

During the afternoon, we need scarcely say, the good nurse practices the same economy in all her procedures. When patients are permitted up in wheel chairs, she uses blankets provided for that purpose in order to save the better ones on the beds. She supplies ash trays where needed to avoid marring the table. In countless ways which are continually presenting themselves, attention and interest will result in a saving that is invaluable.

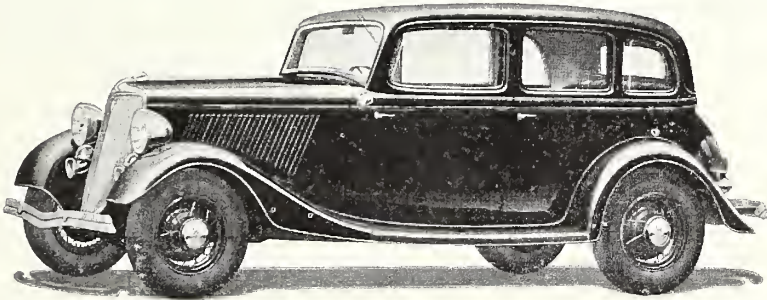
Finally, when she is giving evening care before leaving the patient for the night, she notices that the night lamp is burnt out. She replaces it, to prevent a careless nurse from using a towel or paper to dim a light, for such a method is not only a fire hazard, but may result in the scorching of linen, a big item of wastefulness. She assures herself that all things needed for the patient's comfort during the night are in the department ready for use, and so prevents a waste of time for the night nurse. Spending hours searching for things is not only a lack of efficiency, but is likewise annoying to patients. After turning out all unnecessary lights in diet kitchens, bath-rooms, etc., the conscientious nurse reports off duty, not realizing, perhaps, the amount of money and of time which she has saved the hospital in



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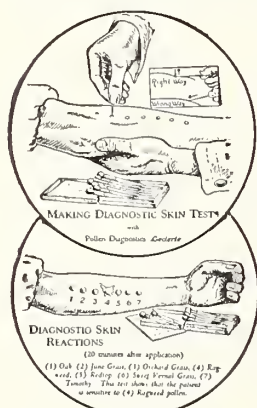
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a single day by her thoughtfulness and interest.

Let us briefly sketch in dollars and cents an estimated sum total to which economy practiced in this manner might amount. First, refinishing of the damaged sill resulting from an open window would probably cost 20 cents. Turning out the light which might have burned uselessly several hours would amount to 4 cents; and the turning out of other lights that are not needed at the time might save 4 cents. The prompt repair of a leaky radiator or faucet saves, possibly 20 cents. Let us add 10 cents saved by observing the trays.

In these few items we find a total of 58 cents per day. Let us suppose that twenty nurses save this amount for a hospital each day. A little multiplication gives us the astonishing amount of \$4,234.00 for 365 days, as the total of this combined effort at conservation for a year. Add to this the less frequent saving where care prevents the destruction of valuable articles such as the sterilizers, or where the timely repair of a radiator prevents a flooded room, and we realize what an asset to her hospital is the nurse who has the good judgment and the interest to be economical; what a real detriment is the one who is careless and wasteful.

It is evident, as we consider these daily experiences that arise in the work of the nurse, that economies of this nature are going to be practiced by the careful, thoughtful, dependable character. A nurse who is considerate and attentive in such matters to will probably be equally reliable in the care of her patient. She has trained herself to ward the institution in which she is working, observe and to be mindful of details. She will not forget the likes and dislikes of her patients in the administering of medicines. In short, she is quite sure to be the efficient woman who is always in demand.



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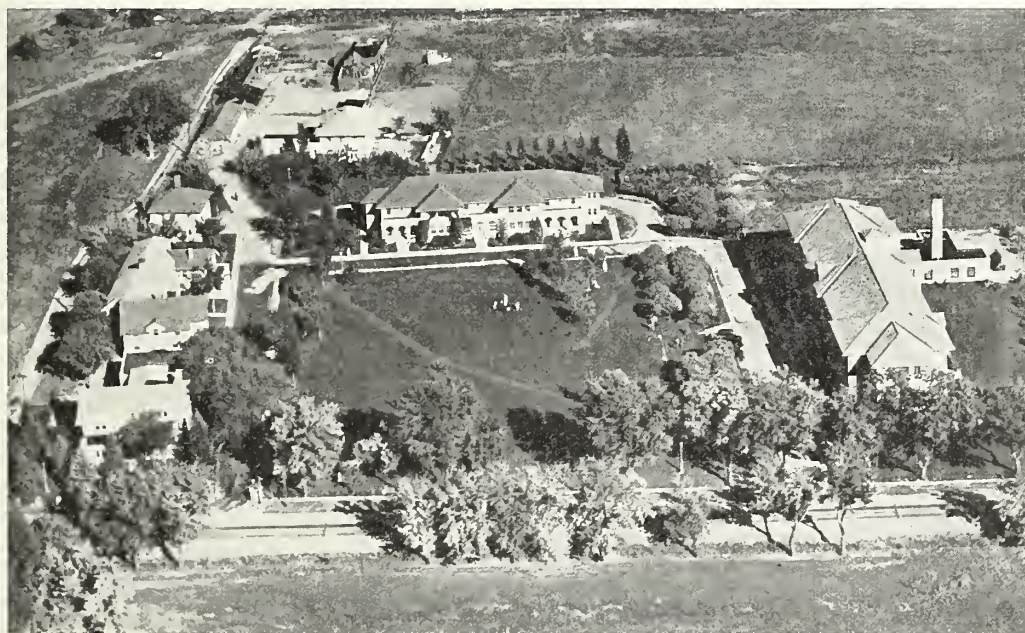
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CLARIFYING THE EIGHT-HOUR DAY FOR NURSES

BARBARA FERN DOBBINS, R.N.
DENVER

For months and even years in the more progressive communities it has been evident that the nursing profession, in order to develop and progress equally with other professions, must discard many of its deeply-rooted and narrow traditions of the past decades and follow the trend of the swiftly changing social order of a new day. Its leaders have been in a quandary as to how to proceed best to bring about a more unified modern organization due to the fact that they are dealing with a body of individualized workers. Individualism is a valuable leadership. The strength and power of any group lies in the coherence of its members under a powerful leader.

Amidst the chaotic upheaval of the old order trying to adjust itself to a new era, there are still hundreds of hopelessly unprogressive members of the nursing profession who cling to the fossilized ideas of a past generation. With an ultimate view of bringing our widely scattered groups into closer national relationship, the leaders of our profession have advanced and put into effect many progressive movements. And now, preeminently, comes the question of a shorter work day for the registered nurse.

I have found when discussing the subject with doctors that many of them have only a vague idea what it is all about. Their minds are merely confused with the economic aspect of calling three nurses on one case. I would like to clarify this question which is at present paramount to all other nursing problems and must inevitably come to an issue. “How would the eight-hour day affect the patient, the doctor, the hospital, and the nurse?”

There is no individual so closely associated with the patient as the nurse. It is she who remains alone with her hour after hour, who must adjust herself to every whim and thought of a desperately ill and often discarded mind, who is called upon to perform the most intimate tasks, who must keep herself neat and immaculately clean and her mind alert for changes in the patient's con-

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dition, who must avoid, as she would the plague, any suggestion of fatigue or irritability in herself. She must be, aside from her technical training, healthy and cheerful. How often one sees a nurse's philosophy reflected in the mental attitude of her patient.

Irritability is the most frequent cause of complaint made to doctors about nurses. This is due, in most cases, either to overwork or loss of sleep, resulting in an impatient and intolerant attitude on the nurse's part which the patient quickly resents. Not under any circumstances is this justifiable in a nurse on duty. No matter how tired she may be, nor how many hours she has worked, nor how much sleep she has lost, the patient's welfare, happiness and comfort must always remain her first consideration. Eradicate the cause of this common failing and the effect upon the patient will be ample reward. The primary objective in shortening the nurse's work day is to give more adequate and satisfactory nursing care to the patient.

The medical profession, including in its wide scope the field of nursing, is singularly different from others inasmuch as its members derive the most complete self-realization from an altruistic rather than an egoistic spirit. If a patient's welfare depends so directly upon a nurse's attitude, it is obvious that a rested, optimistic, soothing nurse is of inestimable value. It is a gross injustice to a patient to place a tired, irritable nurse on a case no matter how good she may be. I regret to say that there are innumerable instances in which nurses have failed to give satisfaction because of this single failing. The patient's recovery has been retarded, the doctor upset and disillusioned, and the hospital's standing affected by poor nursing service. If there is one single factor I know of that will go further toward hastening a patient's recovery than any other it is the constant, cheerful, uncomplaining care given by a nurse who displays a love for her work.

Is it not evident that a nurse working eight hours with a sick person, who is frequently neurotic and even psychotic, would be more efficient and physically able to handle the case than one working twelve con-

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tinuous hours day after day? Doctors, above all others, surely realize and understand this phase of the question. A nurse's professional life could be lengthened by a number of years if there were less demand made on her strength during the years of young womanhood. Why do nurses break down and become practically unfitted for active service after middle age (with a few brilliant exceptions), while teachers, writers librarians and women of the business world go on years after the nurse is through? Are nurses not far-sighted and logical enough to face the fact that even though we are making a few extra dollars a day now by working overtime, we are literally lopping years off the other end of the yardstick. If we do not realize it, then surely the medical profession with whom we are so closely allied should enlighten us and prevent our committing professional suicide. The condition is simply a hangover from the past when it was considered necessary and fitting for a nurse to give all of her time, her health and her future security to her profession. I remember reading some years ago during the serious illness of King George of England the fact that his nurses worked in relays of eight-hour shifts. The doctors could take no chance of having tired-out, sleepy nurses watching over such a valuable life. And yet, his life should mean no more to a conscientious nurse than one from the lowest social stratum. It does prove, however, that doctors are aware of the fact that nurses begin to lose their alertness and highest efficiency after long hours of continuous duty.

Whatever affects the patient affects the doctor, the nurse, and the hospital. Patients are the rock upon which the great medical structure is founded. Those men in medicine who have reached the heights have learned to endorse any plan that is conducive to the patient's welfare. Here let me stress the point that this is affected more than may be imagined by the personality of the attending nurse. In the event of a nurse's finding herself on a case which is not congenial it is better to retire quickly and gracefully without running the risk of making the patient unhappy. Certain personalities always

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have and always will be incompatible. It is an immutable law of nature and it is futile to go against it.

Some doctors protest that a patient could not adapt himself to three different personalities in twenty-four hours. On the contrary, I think it would be to the patient's advantage. Life becomes very tiresome to the bed patient and he gets just as bored looking at the same nurse for twelve hours as she does at him. (I herewith offer my humble apologies to the many charming and interesting patients I have taken care of.)

From an economic viewpoint it would cost the patient just about the same for twenty-four hours' continuous nursing care as it has in the past, only that fifteen dollars would be divided among three nurses, each receiving five dollars.

The eight-hour day would provide work for one more nurse on every case requiring continuous care without additional expense to the patient. If a convalescent patient wished to retain only one nurse at five dollars it would be to her advantage. The erroneous idea that the public in general has that nurses are overpaid is due to the fact that we are willing to continue working longer hours, Sundays and holidays.

Some doctors argue that there would be too much confusion giving orders to three nurses and adjusting oneself to three different methods of nursing procedure. This has not proved to be the case in the hundreds of hospitals throughout the country where the eight-hour day is in effect. The change has been accomplished smoothly and without friction. The hours are usually 7 a. m. to 3 p. m., 3 to 11 p. m., and 11 p. m. to 7 a. m.

A doctor usually leaves a new set of orders for the night when he makes his evening call, and as for working with three different nurses, the basic principles and fundamentals of nursing are the same, so that any intelligent nurse can soon familiarize herself with a doctor's favorite routine. The medical profession as well as others has been put in jeopardy by the disruptive changes of the past few years and the only way to bring order out of chaos is to fall in line

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There is no better criterion of a hospital status than happy, satisfied patients. Poor nursing alone may do irreparable harm. It is therefore incumbent upon those in charge of institutions to see that every possible thing is done to obtain satisfactory and adequate nursing care. A contented group of nurses cannot fail to reflect upon the atmosphere of the place. Cheerful nurses constitute one of the most attractive phases of hospital life and linger longer in the minds of the ex-patients.

From the experience of being closely associated with hospitalized patients for a number of years and who have quite frankly expressed their views, I have come to realize that nurses may be either a liability or an asset to a hospital. The cure? Shorten working hours so that the nurse may live a normal life, may associate for part of the day with healthy and happy people, so that she may learn what is going on outside the walls of a hospital. Nurses as well as doctors are much criticized for talking "shop" when a group assembles. Why not? It fills their waking hours, they see nothing else, do nothing else, and hear nothing else.

It is a most deplorable but nevertheless true fact that the very nurses who pull against progressive movements and who most strenuously object to the short work day at five dollars are those who work most steadily. This is not only true of Denver. It is found to be so throughout the country. She does not stop to think that the small difference in her daily income, the material loss, would be of such infinitesimal significance compared with the value of four golden hours of leisure as to be practically negligible. Four hours a day to rest, to play, to read, to study, to take up hobbies, to entertain friends, to see good plays, to hear good music, to do many things you have always wanted to do without feeling that you were doing your patient an injustice by robbing yourself of sleep and rest! How infinitely fuller and sweeter life would be.

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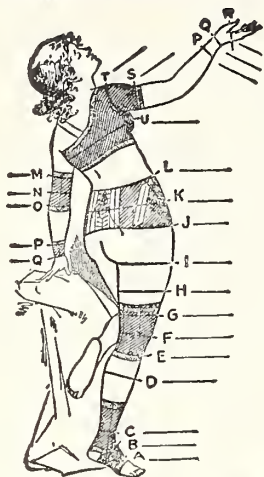


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lusion. It is a concrete fact. It is all about us. California has long had eight-hour duty for nurses. Anything that is so obviously for the good of the whole rather than for the individual must eventually materialize. But in order to accomplish it, those able and tireless leaders who have brought us this far along the road toward future security need the cooperation of every nurse in the country. Harmony, unity, tolerance is essential before we can hope to rise to the heights that other professions have attained.

In conclusion I would like to say, "If I could inculcate one personality trait into every nurse, one that to me transcends all others, it would be loyalty. Be loyal to your profession, to your doctor, to your hospital, to your patient—for it is only in being loyal to others that you can be loyal to yourself."

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"Did the beer at the party last night remind you of anything?"

"Not until this morning."

* * *

Bassler—Why didn't you study the time table; then you wouldn't have missed the train.

Rhodes—That was just the trouble. I wasted so much time trying to puzzle out the time schedule that the train got away.

* * *

Betty returned from one of her first days at school. "What did you learn today, dear?" her mother inquired.

"Not much," she replied in a discouraged tone. "I've got to go again."

* * *

Lady: "You say your mother is ill today?"

Johnnie: "Yessum, sumpin's the matter with her throat."

Lady: "Well, that's too bad. She was well when I visited her yesterday."

Johnnie: "Huh! It's your fault, then. Ma said you always give her a pain in the neck."

* * *

The minister asked the small boy whether or not the family had any animals. The boy replied: "Yes, four. Mama's the deer, the baby is the lamb, I'm the kid and dad's the goat."

* * *

Patron (posing for photo)—What will these pictures cost me?

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Teacher: "Johnny, something must be done about your conduct. I will have to consult your father."

Johnny: "Better not, teacher. It will cost you \$10. He's a doctor."



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Whereupon the other frowned, "Aw, don't talk shop."

* * *
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Small Boy: "Grandmother, when are you going to learn to play football?"

Grandmother: "Why, sonny, I can't play football. Why?"

Small Boy: "Well, papa says he is going to buy a new car when you kick off."

* * *

She insisted on taking innumerable frocks with her, and they arrived at the station loaded with luggage.

"I wish," said the husband, thoughtfully, "that we'd brought the piano."

"You needn't try to be sarcastic," came the frigid reply. "It's not a bit funny."

"I'm not trying to be funny," he explained, sadly. "I left the tickets on it."

* * *

"Keep away from that there loud-speaker thing, Alfie," said grandma, sternly, "that fellow what's speaking has got a nasty cough."

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EDITORIAL NOTES AND COMMENT

Ethics of Groups— Ethics of Contracts

ONLY slowly, and seldom, have the Principles of Ethics of the American Medical Association been amended or altered. It is therefore worth more than passing notice that at the Cleveland Session in June three amendments to these Principles were adopted unanimously by the national House of Delegates.

As a matter of fact, the amendments do not alter any existing principle in the basic law of medicine. Principally, they clarify that which already existed. Secondly, they broaden existing application to include members of the profession who might otherwise use a technical loophole to evade their duty.

We reprint here the new wording of Chapter II, Article VI, Section 2, as it is now in force. It should now leave no one in doubt as to the ethical or unethical nature of any form of contract practice. Under these provisions, each individual contract may be easily classified:

Contract Practice

Sec. 2. It is unprofessional for a physician to dispose of his services under conditions which make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession.

By the term "contract practice" as applied to medicine is meant the carrying out of an agreement between a physician or a group of physicians, as principals or agents, and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or a fixed rate per capita.

Contract practice per se is not unethical. However, certain features or conditions if present make a contract unethical, among which are: 1. When there is solicitation of patients, directly or indirectly. 2. When there is underbidding to secure the contract. 3. When the compensation is inadequate to assure good medical service. 4. When there is interference with reasonable competition in a community. 5. When free choice of a physician is prevented. 6. When the conditions of employment make it impossible to render adequate service to the patients. 7. When the contract because of any of its provisions or practical results is contrary to sound public policy.

Each contract should be considered on its own merits and in the light of surrounding conditions. Judgment should not be obscured by immediate, temporary or local results. The decision as to its ethical or unethical nature must be based on the ultimate effect for good or ill on the people as a whole.

With an appropriate renumbering of chapters and sections, a new section was placed in the Principles of Ethics concerning group practice and clinic practice. While Colorado has but little of this type of practice, the new section is important, as follows:

Groups and Clinics

Section 2. The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. As a group or clinic is composed of individual doctors, each of whom, whether employer, employee or partner, is subject to the principles of ethics herein elaborated, the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession.

In connection with the above, may we point with perhaps pardonable pride to the fact that the Colorado State Medical Society's House of Delegates adopted a resolution of exactly similar import, though in different words, at its 1922 Annual Session, and inserted the same into its By-Laws in 1930? We hope that Colorado's oft commended standards of ethics influenced this important national action.

Again pertaining to contracts, another new section was added to Chapter II of the Principles of Ethics establishing in the basic written law what has been rather well understood but unwritten up to this time. It, again, is self-explanatory, as follows:

Section 4. It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy.

This new section may well become of vital importance in Colorado this year. Several times recently attempts have been made by lay organizations to set up so-called insurance schemes, guaranteeing medical service and hospitalization for a membership fee of a dollar or two a month. These same organizations have then attempted to employ their doctors—the ones who would have to deliver the dollar or two dollars' worth of service—at rates usually around ten cents per patient per month. The doctor would get from 5 to 10 per cent of the money that patients supposedly pay for medical service. This sounds ridiculously exaggerated? The documentary proof is available. It should be unnecessary for the American Medical Association to label such practices unethical or for Colorado Medicine to prate about them, but unfortunately such is not the case. These lay-profit schemes too often are painted in such attractive colors that the individual doctor's judgment would be blinded if it were not for eternal vigilance on the part of organized medicine.



Scientific Exhibits:

Section on Pathology

AESCULAPIUS himself would envy the physicians of Colorado who attend the State Meeting this year. Aside from the scientific sessions there will be selected exhibits which by themselves deserve three days of study.

The educational value of the Section on Pathology alone will repay attendance. The

displays are planned to emphasize certain values of clinical pathological evidence in diagnosis and show some of the less familiar and more recent technics. Additional instructive features will be the demonstration of methods and accomplishments in certain research problems of fundamental value.

Several exhibits will correlate the radiological signs with clinical and post-operative findings including both the gross pathologic specimens and photomicrographs of their histology (aortic aneurisms and malignancy of the colon).

Exhibits of life-sized, colored, wax reproductions will disclose the proper technic of vaccination and toxoid administration. Various lesions of organs and tissues and the ovarian changes in animals used for biological pregnancy tests are also shown in wax.

Mounted museum specimens and their companion photomicrographic slides will urge the importance of standardizing our classifications of renal diseases. Pathologic changes of certain endocrine tissues are to be similarly displayed. Dye injection studies of the structure and distribution of lymphatics representing several years of meticulous work will be especially interesting to the surgeons.

Every doctor should be attracted by an exhibit of preliminary findings in research correlating the female sex hormone content of women's urine with endometrial histology and menstrual cycle. One of the interesting points in this work, which is too little appreciated, is that 900 test animals are required for the study of a single menstrual cycle.

Other exhibits will show living leukocytes in their wanderings; microscopic material passing through color filters; the technic and disclosures of ophthalmoscopic examination of the retina (which alone requires one entire room); and others the description of which limited space prohibits. (See program for details.)

Remember: Not to see "Pathology Exhibits" is not to attend the meetings! And this is not all. There will be many other exhibits including x-rays, demonstrations, and motion picture films. G. Z. W.

Sound the Gavel!

NOTING the auspicious program of our State Society Meeting this month, we feel it is not out of order to sound a note of respectful warning to any speaker who might thoughtlessly encroach upon the time of others. There is no offense so likely to detract from the effectiveness of a mixed program. We readily recall that the programs which have been most generally appreciated and favorably discussed have been those with a presiding officer who swung a ruthless gavel.

Apropos of this theme is the following paragraph from the editorial columns of an eastern state journal. It bears the title, "How Long, Oh Lord, How Long!"

"That sage bit of advice to the young preacher that 'no souls are saved after one half hour' might well be extended to include the scientific burbles of the young medical man. It may well be added that it applies equally well to the old preacher and the old physician. Fortunately the average doctor does not indulge in public speaking to any great degree. There are, however, the medical meetings. These gatherings can and should be made of the greatest value to participants—but, we must sadly add, they can and should not be, yet all too often are, made veritable means of torture to the long suffering colleagues of the ambitious doctor who is bound to say it all at whatever cost to them. Recently we have seen well planned programs in our local medical gatherings utterly ruined by the indefensible prolongation of a scheduled twenty-minute address to a full hour—with the crowding of an eminent out-of-town speaker far into the night. Under such circumstances the guest must face an audience whose temper has been already ruined and in whom evidences of advanced fatigue are all too apparent. Such action is thoughtless and discourteous. It must in all fairness, however, be added that the guest speakers themselves have been, within our memory, even worse offenders than the local gentry on occasion."

A noted surgeon once remarked at the

conclusion of an address that any one who spoke more than twenty minutes was a darned fool—and any one who listened more than twenty minutes was a damned fool.

The editor is constantly reminded of the fact that our shorter articles are most widely read. They incite the vast majority of compliments received upon the exceptional quality of the scientific content of this journal. They convey a more definite and lasting message. Theirs, then, is the greatest contribution to medical progress.

Authors: have your manuscript double or triple spaced; leave wide margins for editorial markings preceding publication; conclude with a summary if possible.



Pneumothorax in Pneumonia

LIEBERMAN and Leopold published a few months ago a report upon the treatment of pneumonia by artificial pneumothorax in eighteen dogs. Eighteen similar animals with pneumonia produced artificially in the same manner were used as controls. Fifteen of those treated by pneumothorax survived; only five of the controls survived. The injections were invariably accompanied by improvement resembling the crisis in human cases.

The authors have not tried to explain their results, nor have they suggested we try it therapeutically. However, they promise reports on clinical trial in the near future.

DON'T MISS—

—Your favorite speaker at the Colorado Springs meeting. He will start ON TIME. If you want to hear him, be there ON TIME.

The Fracture Seminar at Colorado Springs will start at EXACTLY 10:15 a. m. Thursday, Sept. 20. Be there ON TIME.

The Symposium on Obstetrics begins at EXACTLY 2:00 p. m. Friday, Sept. 21. Be there ON TIME.

The Endocrine Seminar on Saturday, Sept. 21, will begin at EXACTLY 2:30 p. m. Be there ON TIME.

SHALL THE STATE MEDICAL SOCIETY ASSUME CONTROL OF ADMISSIONS TO CHARITY CLINICS AND HOSPITALS?

A DISCUSSION BY THE COMMITTEE ON MEDICAL ECONOMICS OF THE COLORADO STATE MEDICAL SOCIETY

At the Annual Session of the Colorado State Medical Society this month in Colorado Springs, the Committee on Medical Economics will present the following proposed amendment to our By-Laws for discussion and possible adoption by the House of Delegates. In the Committee's opinion, it is the most far-reaching, fundamental piece of organizational legislation being considered by the profession in the United States at this time. It is therefore presented to the entire membership of the Society by publication in the hope that members will think deeply on the subject and let their Delegates know, individually and by county societies, their considered judgment. The amendment, which if adopted would constitute a new chapter in the State Society's By-Laws, follows:

GRATUITOUS MEDICAL SERVICES

Section 1. This Society declares that it is a right and a duty of the medical profession to determine for itself what individuals, institutions, and organizations shall have claim upon physicians for gratuitous services.

Section 2. No member of this Society may offer or give to the poor wholly or partially gratuitous medical service, other than in the traditional relationship of physician to private patient, unless the recipient of such service has first been declared eligible thereto by an agency which is engaged in social service investigation and is operating under the general supervision of, and under regulations laid down by, this Society.

Section 3. The provisions of this Chapter shall be construed in harmony with the Principles of Ethics of the American Medical Association, and nothing herein shall be construed as superseding or amending said Principles of Ethics.

As indicated above, your Committee on Medical Economics believes this to be fundamental and far-reaching, dealing with a problem of such increasing importance that

it should be thoroughly considered by the profession before adoption or rejection.

At present we as a profession are submissive to the decisions of social welfare workers. Social service organizations, welfare agencies and individual workers set their own regulations over the admission of patients to such charity clinics and hospitals in Colorado as are "social-serviced." This present system has created a grave situation, dangerous alike to the public (both as patients and as taxpayers), to the practice of good medicine, and to the future of the medical profession and its dependent and allied professions. The system, as functioning, tends to bring into our charity clinics and hospitals a constantly increasing number of patients, regardless of whether the patients are actually deserving of free service or not.

We have allowed these agencies to come into our daily work and to place themselves between us and our patients. Your Committee believes that each doctor should retain his right to determine for himself who is entitled to receive his services gratuitously, but these agencies and visitors are gradually taking that right from him if they have not already succeeded in doing so. These workers not only tell us which patients should be given free medical attention and which patients we shall be "allowed" to charge, but too often they tell us what service we shall render such patients, and even take from us our right to diagnose and treat according to our scientific judgment. Too frequently representatives of such agencies make a layman's diagnosis and convince the patient that he needs a certain medical service, which in reality may not be needed. Then, when the doctor in his judgment determines that the certain service is not needed, the psychological effect upon the patient becomes serious for he usually believes that the doctor is merely trying to avoid giving a free service. This sort of situation is applicable to those who genu-

inely deserve free care as well as to those whose eligibility is questionable.

This undeserved gratuitous service puts a markedly increased burden on the taxpayer supporting the free institutions and upon the physicians who are contributing their services, because these agencies more and more are bringing into our charity clinics and hospital patients who should be part-pay or full-pay patients. Further, such activities are gradually "educating" great masses of the public into the belief that one should not have to pay for medical service. Thus our remaining full-pay and part-pay patients are gradually becoming one and the same with our free patients. This is a tendency not chargeable to the depression, the drouth, or the stock market. It has been a trend for almost a generation. It became serious well before 1929. It has become more critical in recent years, and the medical profession, suffering more from the depression than most other groups and therefore looking for the cause, has just begun to realize what has been happening during the last fifteen years. While until recently the problem was apparently only in the large centers of population, the system's branches now extend into the most rural communities. The physician is helpless as an individual to effect a remedy. It therefore becomes the duty of medical organization to undertake what seems to be the best measures available for correction.

Such is the problem. Is the suggested By-Laws amendment the best method of solving it? The profession of Colorado must answer the question through careful thought, and should then decide it officially through its House of Delegates. It is quite possible that Colorado will have taken the lead toward a national movement if the amendment is adopted and its provisions are successfully carried into effect. The adoption of the amendment would mean that the profession, through appropriate committees, would determine what constitutes the full-charity and the part-pay patient, and would enforce its decisions.

fort to restrict free service and grossly discounted service to those who honestly can qualify for such, and (b) An effort to unify professional opinion and particularly collective action in economic matters. It is an effort to re-establish our independence from the direction and compulsion of those agencies now existing, and others which it can be foreseen will exist, tending to dominate the medical profession from the outside. It is an effort to re-establish the principle—to regain an old right—that the profession has the right to determine to whom it shall donate its services and to manage its collective business as its good judgment dictates. The adoption and successful operation of the amendment will be an important step in medical organization, and certainly a basic preparation to meet other important problems which are bound to arise because of disturbed national economics.

Assuming its adoption, the State Medical Society would set up the necessary machinery to formulate and enforce regulations controlling the admission of patients to charitable institutions whose medical care is donated by the profession. Then the procedure under the new system would be about as follows: The State Medical Economics Committee, or a similar committee from a county society, would in conjunction with social service representatives arrange a schedule of requirements entitling an applicant to free medical service. Those who apply for such care but cannot meet the requirements would be issued a card stating that they had been investigated by the social service or similar department of the institution and were considered by that department to be deserving of a reduced fee—say one-fourth, one-half, or three-fourths of a customary minimum fee. This card, which would then carry with it the weight of the State Medical Society, would be presented to any physician of the patient's choice. It is assumed that the physician would comply with the card's recommendations, for the physician would have authentic information regarding the financial status of his patient. The investigation costs would be borne, as now, by the agencies or institutions recom-

Two objectives are apparent: (a) An ef-

mending or distributing free and part-pay medical service.

This naturally gives rise to the question of hospitalization of the part-pay patient. At the present time the wards and semi-private rooms in the private general hospitals are fully able to meet the needs of these part-pay patients. The per diem charge in wards varies by localities from one dollar to two dollars and seventy-five cents, which averages substantially lower than at our tax-supported charity institutions which have a minimum three-dollar-a-day charge.

Should an institution rendering free or part-pay medical service decline to cooperate with the profession under the provisions of the amendment, members of the State Medical Society donating free or part-pay service would be called upon by the Society to sever their connections with such institution until cooperation could be obtained. Your Committee believes, however, that no such tactics would be called for, assuming from what experience has been had along similar lines in Pueblo County and a few other localities, that honest, cards-on-the-table presentation of facts by diplomatic committees would convince that institution of the reasonableness of the plan. Should it come about that large institutions, singly or in groups, should defy the profession, we have before us the example of Los Angeles, where a disciplined Medical Society assumed control of a similar problem by a no less drastic action than the temporary unmanning of most of the charity clinics in the city. It can be done if the profession is willing to so discipline itself and if the profession is willing to withstand the possible repercussions from the outside.

The idea that physicians will never cooperate with each other or stick together on such a problem has been disproved, at least in Colorado, this year. It was disproved by the loyalty of every county medical society to the Medical Economics Committee in matters connected with the C.W.A. and F.E.R.A. This was unexpected by the Committee, but we then concluded that real organization of the profession is possible. Complete organization has never been ac-

complished through scientific interest alone—too many physicians do not belong to their county societies—but it can be accomplished through economic interest.

Some vital issue is essential to effect this complete organization. Medical social service and welfare work have grown beyond the limits of cities into the smallest communities, so most physicians have had contact with them and recognize the essential conflict of economic interest between medical social service, its aims and their fulfillment, based upon a continuous salary, on the one hand, and the medical profession which this fulfillment exploits, on the other.

Rexford G. Tugwell advised the social service profession that, to receive public support, these workers must adopt ideals similar to those of the medical profession, they must endeavor to eliminate the need for their own services, must endeavor to rehabilitate the unemployed and receivers of relief—rather than to increase the demand for relief, the need for their own services, the numbers of their own profession, and their own remuneration.

Therefore this is an issue with which the profession is familiar, and around which the profession can be organized. Organization is really the chief advantage. Superficial thinkers will be first attracted by the expected increase in income. Such will happen to a modest extent, but not to the degree many predict, at least not until the public is taught that those who can, must pay for medical service just as they pay for their food, shelter, clothing, and luxuries.

The issue, the problem, the amendment itself, all logically come within the purview of the State Society rather than county societies, because this Society is the most impersonal, the largest, the most representative of all elements, and the least subject to reprisals. From a state-wide viewpoint, there would be better uniformity, and not more than 20 per cent of the membership would be affected.

An analysis of the amendment's provisions will be helpful:

Section 1. No comment; this section is not debatable from the professional view-

point; it is merely putting in written words what has been always believed.

Section 2. This is the enforcement section. It states that members will not be allowed to give free or part-pay service, except:

(a) As they have always done in their offices and homes, i. e., to their private patients who are poor, or, as consultants, to the private, poor patients of the colleague who asks consultation, and

(b) To non-private patients who have been declared eligible after a social service investigation. Here it recognizes the value and necessity of social service, because of training and experience, as an ally but not as a boss of the medical profession.

Next the section qualifies the type of social service by placing it under the supervision and regulation of the medical profession, and thereby the Medical Society also assumes responsibility for the proper conduct of such controlled-social-service agencies.

To analyze the ultimate effects of the section in another manner: It first is prohibitive; to disobey would mean loss of membership in organized medicine; second, it assumes for the profession the responsibility of rendering free service to the public which responsibility at present is carried by agencies distributing such service; third, it assumes for the profession the responsibility of caring for the part-pay patient outside of free clinics and hospitals. To carry it out, the profession must be ready and agreeable to assume the burden of the part-pay and the "won't-pay" patients in private practice, as contrasted with the present idea of passing all these on to the charity clinics and hospitals.

Section 3. Every member should read again the Principles of Ethics, printed copies of which are available from the A.M.A. if the member does not have an A.M.A. Directory, in which they are published. This section is added in order to avoid enumerating in Section 2, with heavily involved legal language, the duties of the physician to the poor, his duty of giving gratuitous service to his colleagues, his duty to render service

in any emergency situation regardless of whether or not he may later be paid, etc.

In considering the possibility of placing this amendment in the basic law of the Medical Society, the possible objections and difficulties of enforcement should be considered, as well as the advantages. A few repercussions are certain to follow its adoption; others may or may not develop. Some of these possibilities are here enumerated:

1. Some physicians may insist that the State Medical Society has no right to inject its power of discipline into the economic affairs of the individual. They may criticize the amendment as a "labor union policy," inconsistent with the dignity of the profession and in conflict with tradition. This might raise a question as to the Society's ability to discipline its members without serious losses in membership.

2. Antagonism and perhaps retaliatory actions might develop from the management of institutions whose free-medicine policies would be altered by the working of the amendment.

3. Individual fault finding is sure to arise from those accustomed to receive free medical care and who will be forced into the part-pay or full-pay classes by the operation of the amendment because they have not genuinely deserved free care. This fault finding might develop to the point of public criticism in the press, with talk of "medical trust" and mercenary policies. If so, such criticism would have to be answered publicly, and might thus embroil the Medical Society in a sharp public controversy.

4. Some welfare workers and their supporters will resent it as an intrusion into their field by our profession. Our viewpoint will be one of regaining a lost privilege, but many of them, accustomed to ordering physicians around, will take the viewpoint that we are grasping at their rights and privileges.

5. It may be that the general policy of the amendment is not in keeping with the trend of national economics, and if so, it is likely to fall short of success.

Your Committee does not fear the five possible objections outlined above. On the

contrary, your Committee believes that the amendment can be made effective by a well-organized Society, that our Society is almost if not quite to that point of organization, and that the amendment, if adopted, would accomplish the following results:

1. Restore to the physician the right to determine whom he shall treat free—and the right to do so according to his scientific judgment and the ethics of his profession.

2. Require of the profession that no one needing medical attention shall suffer from the lack of it.

3. Protect the profession from economic imposition, that it may survive and render medical service of high quality to all who seek it.

4. Restore and preserve the personal relationship of patient and physician in quarters where it has been largely lost.

5. Protect our private hospital system, now threatened with financial ruin, in part at least due to the present free medicine situation.

6. Protect the pride of many individuals who should be part-pay patients but who now are urged to accept medical charity and are virtually forced to do so because no system like that proposed by this amendment exists.

7. Lead eventually to a better feeling

and understanding between the professions of medicine and social service.

8. Educate the public to an understanding of the fact that the delivery of medical service must be paid for, personally by those who can pay, by others for those who cannot pay; that the doctor cannot continue working for nothing.

9. Reduce substantially the now increasing tax burden of charity clinics and hospitals.

10. Assure both the charity patient and the part-pay patient of better medical care than they now receive, and both at a reduced cost to the taxpayer. The charity patient should receive better medical care because physicians contributing time to free clinics and hospitals would be less overworked by the institutions they serve, and could thus give more individual attention to each patient. There would be less "mass medicine." The part-pay patient should receive better medical care because he would be returned to the old patient-physician relationship to receive the personal attention of his family doctor.

Your Committee hopes that every Delegate will go to the Colorado Springs meeting thoroughly prepared to discuss this problem and this amendment, carrying not only his own considered opinions but those of all the members of his constituent society.

OTITIC SEPSIS INDEPENDENT OF SINUS THROMBOSIS*

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The controversy as to whether all cases of otogenic general sepsis are accompanied by thrombosis of the cerebral sinuses continues unabated. Schwartze¹, Körner², Schwabach³, Alexander⁴ and many others are in agreement that pyemia without attendant thrombosis occurs, the majority ascribing such cases to involvement of the venules of the cellular walls. Opposing this view are Leutert⁵, Jansen⁶, Oppenheimer⁷, Dench⁸, Libman, and Cellar⁹, who consider bacteremia in the presence of suppurations of

the middle ear and mastoid as proof evident of thrombosis warranting exploration of the sinus.

The subject is of vital importance to the otologist. If bacteria can enter the circulation without the intervention of a thrombus in one of the cerebral sinuses then bacteremia accompanying middle ear or mastoid infections is not an absolute indication for ablation of the sinus. If, on the contrary, otitic sepsis is always preceded or accompanied by sinus thrombosis, then it is patent that a positive blood culture will be acceptable as an absolute indication for operative intervention.

*Read before the Western Section of the American College of Surgeons at Salt Lake City, Utah, March 1, 1934.

There are not a few reports in the literature of streptococcemia in the presence of disease of the middle ear or mastoid in which there were neither macroscopic nor microscopic evidences of sinus phlebitis or thrombosis. So that, in contradistinction to the attitude of Braun¹⁰ and others, the belief is gaining ground that bacteremia of otitic origin may occur without the presence of changes in the sinus wall. The experimental work of Haymann¹¹ supports this view. Haymann has shown on dogs and monkeys that bacteria may pass through the intact sinus wall and enter the circulation without the presence of a thrombus in the sinus. The pathological studies of Fiendt, Blau and Haymann¹² add further evidence. Haymann, in a study of almost 500 cases operated and post mortem, was able to follow the inflammatory tract from a focus within the mastoid to the thrombus in about 80 per cent of the cases. In the remaining 20 per cent, however, no gross lesions were demonstrable. In these, he contends, infection extends from the tympanic or mastoid cavities directly into the blood stream. These he designates cases of "Otitic Sepsis Independent of Sinus Thrombosis."

The cases presented herewith, empirically, belong to the second group. They are presented as cases of otitic sepsis independent of sinus thrombosis.

CASE 1

A male, 61 years of age, was seen on May 4, 1927. Simple mastoidectomy was performed on left ear. Pus, liquid. Dura and sinus, not exposed. Culture, pneumococcus, group IV.

COMPLICATIONS. CASE 1

	Temp.	Pulse	WBC	Symptoms
May 7, 1927	101-102	80-90	-----	Delirious.
May 8, 1927	102-105	90-100	19000	Delirious, vomiting.
May 10, 1927	102-106	90-100	16000	Delirious, hiccough, vomiting, pain, right ankle.
May 11, 1927	102-104	80-100	16800	Involuntaries. Pain in ankles.
May 12, 1927	102-105	100-105	-----	Bld. cult. pos. Convulsions. Metastases, both ankles.
May 13, 1927	100-104	80-90	-----	Rational. Pain, shoulder and ankles.
May 30, 1927	98	80	-----	Periarticular abscesses drained.

COMPLICATIONS. CASE 2

	Temp.	Pulse	WBC	Hb.	Symptoms
Dec. 25, 1927	-----	-----	-----	-----	Dermatomyositis of the scalp and face.
Dec. 27, 1927	99-105	120-130	-----	-----	Pain in both hips.
Dec. 29, 1927	99-105	120-140	27000	68%	Metastases right hip.
Dec. 31, 1927	99-104	120-140	-----	-----	Chills. Pain in right leg.
Jan. 1, 1928	99-101	90-110	Blood culture negative.		
Jan. 22, 1928	101-103	100-130	-----	-----	Trephine of right femur. Culture: Strept. vir.

Summary and Comment: Following a simple mastoidectomy in which neither the dura nor sinus had been exposed the patient developed symptoms of meningitis. On the fifth day metastases into the periarticular tissues of both ankles took place. Blood culture showed pneumococcus, Group IV, the same organism as was recovered from the mastoid. No local signs of sinus thrombosis. Spinal puncture, not permitted. Patient recovered without operation on the sinus.

CASE 2

A boy 5 years of age was seen on Dec. 17, 1927. Bilateral simple mastoidectomy was performed. Extensive necrosis was present. Sinus and dura, not exposed. Culture, streptococcus viridans.

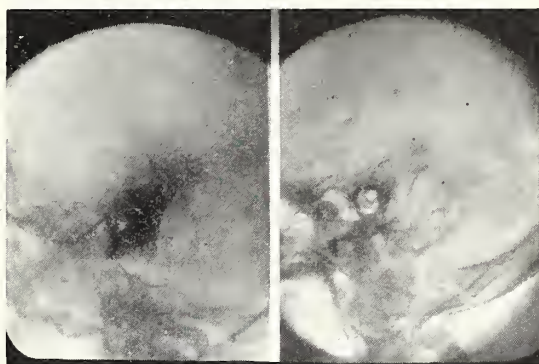


Fig. 1. Case 2. X-ray of right mastoid compared with a normal right mastoid.

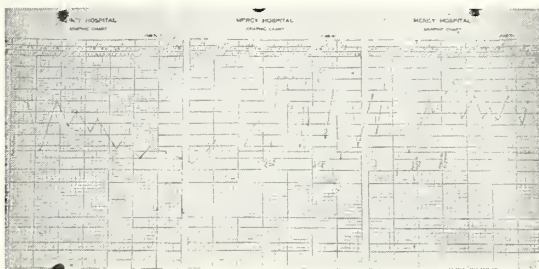


Fig. 2. Case 2. Postoperative sepsis.

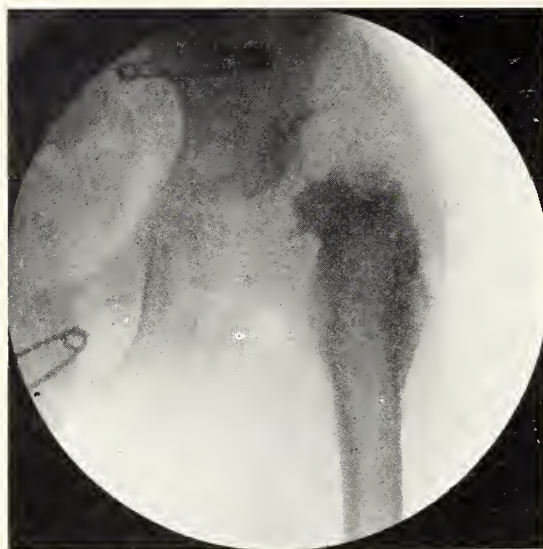


Fig. 2. Case 2. Osteomyelitis of right femur.

Summary and Comment: Patient, five years of age, ten days following the mastoidectomy, in which neither dura nor sinus had been exposed, developed metastases in the right hip. Culture from the hip showed streptococcus viridans, the same organism as recovered from mastoid. Pathological dislocation of hip and destruction of head of femur occurred. Recovered, but lame. Sinus, not operated.

Though there were no local signs, the chills, septic temperature, and loss of hemoglobin were strongly suggestive of sinus thrombosis. However, as blood cultures were negative and there were no further metastases; the sinuses were not explored.

CASE 3

A girl 9 years of age suffered acute suppurative otitis media of left ear, which had been under treatment for the past two weeks. On April 29, 1928, patient developed an acute arthritis of the left ankle, the joint being greatly swollen, hot and tender. Temperature, 103°; pulse, 140; WBC, 14,000. X-ray shows cloudiness of all structures, with no areas suggesting necrosis.

Operation, April 29, 1928: Simple mastoidectomy. Hemorrhagic type of mastoid. No free pus. Sinus and meninges, not exposed. Culture from mastoid showed diplococci and short chains. Bloodclot closure.

Case Summary: Patient, aged 9 years, suffering from acute suppurative otitis media for two weeks, developed metastases in the left ankle. Recovered without operation on sinus.

CASE 4

A girl 2 years of age was admitted to Children's Hospital on Jan. 14, 1931, with discharging right ear of three weeks' duration and symptoms of meningitis. The child was delirious. There was retraction of the head and rigidity of the neck. Temperature, 106°; pulse, 130; respiration, 35; WBC, 19,400; Hb., 68 per cent; spinal fluid, 257 cells per c.mm.

During the following two days the neurological symptoms gradually subsided and the temperature dropped to normal. On Jan. 19, the temperature

again rose sharply and the patient developed tenderness and edema over the right mastoid.

Jan. 19, 1931: Simple mastoidectomy. Culture, streptococcus hemolyticus. Dura and sinus, not

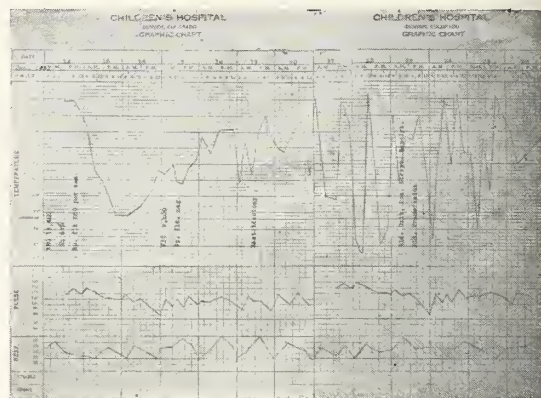


Fig. 4. Case 4. Postoperative sepsis.

COMPLICATIONS

Jan. 20, 1931, Sepsis. Temperature, 96-106°.

Jan. 23, 1931, Bld. cult.: strept. hemolyt. Bld. transfusion.

Jan. 23, 1931. No local signs of sinus thrombosis. Eye grounds normal.

Jan. 24, 1931. Operation on sinus recommended. Refused.

Jan. 27, 1931. Broncho-pneumonia.

Feb 1, 1931. Abscess of scalp (drained).

Feb. 8, 1931. Pyelonephritis.

Feb. 11, 1931. Abscess right elbow (drained).

Feb. 17, 1931. Abscess of left elbow (drained).

Feb. 20, 1931. General anasarca. Hb., 40 per cent.

Convalescence was prolonged. Recovered without operation on sinus.

Comment: The initial constitutional symptoms and the spinal fluid cell count bespoke a purulent meningitis with a hopeless prognosis rather than the mild type of serous meningitis occasionally seen in middle ear and mastoid infections. Delay in performing a mastoidectomy, therefore, seemed amply justified.

Subsequent events, however, showed the fallacy of this attitude. Earlier operative intervention might have obviated or at least mitigated a blood stream infection.

CASE 5

A male 64 years of age was seen on March 3, 1930. An attempt to remove impacted cerumen from his right ear with a match resulted in traumatic rupture of the right drum.

Examination: Upper half of drum was normal, lower half completely torn off. Edges of wound were covered with dried blood. The ear was dry.

Course: There was constant pain, fever and purulent discharge. He was hospitalized March 11, 1930.

COMPLICATIONS

Mar. 13, 1930 Sepsis. Pain in the left thumb. No signs of inflammation.

Mar. 14, 1930 Pain in the right mastoid and left thumb.

Mar. 15, 1930 Pain in the right mastoid.

Mar. 16, 1930 Chilly.

Mar. 18, 1930 Pain in left thumb, elbow, and knee.

Mar. 20, 1930 Mastoidectomy. Culture, short chained strep. Sigmoid sinus exposed 4 to 5 cm., normal in appearance, therefore not disturbed.

Mar. 23, 1930 Sepsis. Generalized jaundice. Huge abscesses of left knee and elbow.

Mar. 25, 1930 Expired.

Post mortem examination by Dr. F. Cerebral sinuses, free from clot or other abnormalities. Cause of death: Otitic sepsis.

Comment: The premonitory symptom of otitic sepsis, pain in the left thumb, was at first disregarded. Not until the elbow and knee were involved was a metastatic infection recognized. This led to exploration of the sigmoid sinus.

Summary and Conclusions

Of five patients suffering from otogenic general sepsis, four recovered without operation on the lateral sinus and the fifth showed no abnormality of the sinus post mortem. The causative organisms were short-chained streptococci in two cases, pneumococcus group IV, streptococcus viridans, and streptococcus hemolyticus.

All of the cases presented the most constant and significant general symptoms of otitic sepsis, chills, intermittent fever and leucocytosis. Two were ushered in by meningitis. In two, pyemic symptoms followed mastoidectomies, in which, however, the lateral sinus had not been exposed.

All were complicated by metastases. These were distributed to the elbow, hip, knee and ankle joints, the periarticular tissues of the ankle and to the scalp. One case showed a dermatomyositis, an angioneurotic type of swelling said to be due to metastases.

The local symptoms of sinus thrombosis were noticeably absent. Griesinger's sign, due to thrombosis of the emissary mastoid vein, was not present. Neither papilledema nor palpable adenitis over the jugular were demonstrated.

Now, what scientific evidence is there that in the cases described infectious intracranial thrombosis was absent?

First, the operative findings. In all of the cases operated the sinus plate was found to be intact, thus precluding any possible infection of the sinus by contiguity.

Second, the early onset of sepsis. Obviously, the erosion of a hard sinus plate and the formation and subsequent disintegration of the thrombus require considerable time, probably ten to fourteen days at least. But in the cases described bacteremia either pre-

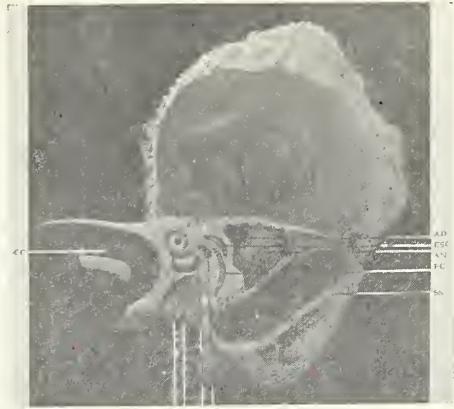


Fig. 5. (From Braun). Showing sinus plate separating mastoid from lateral sinus.

ceded or promptly followed operation. Time for extensive necrosis and contact infection was evidently lacking.

Third, the location of the metastases. The end result of lateral sinus thrombosis is the occurrence of metastases, thus establishing a new focus of disease in some other location of the body. The location of this new focus is dependent upon the size and character of the embolus. If the embolus is very minute, especially if composed of bacteria only, it may pass through the pulmonary capillaries and lodge in the peripheral circulation. If, on the other hand, the embolus consists of a piece of thrombus of any size it is almost certain to be filtered out by the lungs and produce here either an infarct or abscess. The very size of thrombotic emboli, therefore, accounts for the frequency of lung metastases complicating sinus thrombosis. Mygind and Giesswein¹³ found lung metastases twice as frequently as metastases to the bones and joints and Haymann¹⁴ found lung metastases in 88 per cent of all cases of lateral sinus thrombosis that came to post mortem.

In the cases under discussion all metastases occurred in the peripheral circulation and none in the pulmonary circulation. This leads to the deduction that their causative emboli were bacterial only. Had there been thrombotic emboli, some evidence of lung metastases could reasonably have been expected.

Finally, the most conclusive evidence appears to be the recovery of the patients. The

prognosis in non-operated infectious sinus thrombosis is admittedly very bad. While

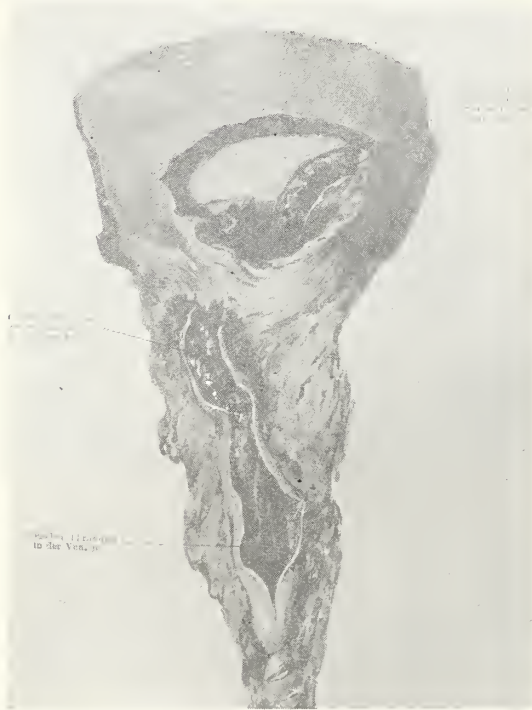


Fig. 6. (After Heine). Showing extensive thrombosis of lateral sinus and internal jugular vein.

it may be conceded that recovery from sterile thrombosis may take place it puts a heavy tax on our credulity to believe that cases such as are seen at operation, with liquid pus in the sinus and jugular vein, will heal spontaneously.

The conclusion therefore appears warranted that not all cases of otitic sepsis complicated by metastases are the result of thrombosis of the cerebral sinuses. This leads to the further conclusion that a positive blood culture complicating middle ear or mastoid infections is not, per se, an absolute indication for exploration of the sinus.

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RECENT PROGRESS IN ECZEMA*

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The word "eczema" was formerly used to designate a large group of dermatoses of many origins. As knowledge has progressed, the term has become more and more limited. Disease entities which have been removed from the category of "eczema" include scabies, impetigo, dermatitis seborrhoeica, dermatitis venenata, mycotic infections of the skin and infections eczematoid dermatitis. Sutton and Sutton¹ state that "It is difficult to form a satisfactory definition or to state precisely what the term includes and does not include: it is a sort of dermatological scrap-heap from which, from time to time some newly assembled group of symptoms is being removed as a distinct disease entity." There seems to be an almost universal tendency among recent authors to

limit the term to inflammatory diseases of the skin in which there is an idiosyncrasy or hypersusceptibility factor. There are, however, many conflicting opinions as to how the term "eczema" should be used, many even preferring to discontinue its use entirely. Upon the other extreme are those who still think of "eczema" in a broad etiological conception denoting a certain morphological type of inflammation of the skin. Those taking one of the several middle courses use the term "dermatitis" for an inflammation of known etiology and eczema for a process of undetermined origin. There are also those who use the term "eczematous dermatitis" for a dermatitis due to external irritants, thus differentiating it from the atopic type and at the same time denoting the idea of hypersensitiveness in contrast to "dermatitis venenata."

*Read before the midsummer meeting of the Arkansas Valley Medical Association, Canon City, Colo., July 14, 1934.

Assuming that there is an allergic phenomena present in all types of eczema, the authors will consider the subject under the three categories of allergic disease of the skin as described by Coca³ (in an address before the section on Dermatology and Syphilology of the A.M.A. in June of this year).

1. The inherited atopic dermatitis.
2. Contact dermatitis.
3. The dermatomycoses.

These three forms differ markedly in their etiology and nature of their excitants. They also differ in methods of testing and in the mode of application of specific therapy.

The Inherited Atopic Dermatitis

Coca's atopic dermatitis has long been known to dermatologists under a variety of terms such as generalized neurodermite or diffuse pruritus with lichenification. It now seems to be emerging as fairly distinct entity, from the previous confusion of various types of localized and generalized lichenifications. Its principal characteristics are: (1) Family history of allergy, (2) preceding infantile eczema, (3) localized in the cubital and popliteal spaces, the anterior portion of the neck, chest, and face, (4) the absence of true vesicles, (5) negative patch tests with many contact irritants, (6) many positive reactions to scratch or intradermal testing.

Theoretically the treatment of atopic dermatitis would be to eliminate as far as possible all foods and inhalants giving positive wheal reactions. Occasionally this procedure yields very gratifying results, but it is doubtful if the indiscriminate subjection of all patients to a large number of skin tests is justified. Many positive tests are obtained, but they rarely seem to be of any practical significance.

Desensitization treatment with the suspected substances is also far from satisfactory. "Propeptones" are being used in Europe for desensitization of food allergies, but their value has not yet been definitely proved.

The "elimination" diets as advocated by Rowe³ are extremely useful and at the present time are used by most dermatologists in

preference to the skin tests in determining the causative factors. In conjunction with one of the above procedures, dermatological topical therapy combined with sedative and endocrine medication should be employed. Fractional doses of x-ray usually give prompt relief but rarely cause a permanent improvement.

One must not forget that there are many other factors to consider which may or may not have a bearing upon the allergic state of the patient. They include disturbances of the vascular system, endocrine dysfunction, changes in the chemistry of the blood and skin, focal infection, neurogenic status, abnormalities of the gastro-intestinal tract and probably other undetermined factors.

Contact Dermatitis

By far the majority of so-called cases of eczema are due to external irritants. Contrary to the popular opinion, many authorities now believe this applies to the infantile type as well as the adult type.

No clinical or microscopical difference exists between a dermatitis due to hypersusceptibility and dermatitis venenata, but there is a definite question of idiosyncrasy in one and not in the other. When normal skin is exposed to external irritants of sufficient quantity to cause a dermatitis it is considered "dermatitis venenata." On the other hand, when there is a lowered resistance of the skin so that it reacts from insults that the normal skin bears without damage, it is no longer considered "dermatitis venenata," but instead it is termed "eczematous dermatitis," "sensitization dermatitis" or "eczema of external origin."

Two recently discovered facts aid our understanding of this important field of medicine. One is the patch test, first introduced by J. Jadassohn in 1896; but not until 1931 was this popularized in this country by Sulzberger and Wise⁴. The test is relatively a simple one. It consists of applying the suspected substance to an untraumatized area of the skin and permitting it to remain twenty-four hours or more. If the test substance is a liquid, a small piece of blotting paper may be saturated with it and held in place by a square of adhesive, the center of which

should be covered with a square of cellophane or other impervious material. The concentration of the substance tested should be such that it is not an irritant to the normal skin. It is best to use high dilutions and compare positive reactions with control patch tests performed with the same dilution on a normal skin. In case the substance to be tested is an insoluble solid, it can be crushed to a powder and covered with the blotting paper which has been saturated with a buffer saline. Readings are made at the end of twenty-four hours, but it is well to follow it for some days, as delayed positive reactions are known to show up even to 10 days. Readings are usually graded from 1 to 4, 1 being redness; 2, redness with infiltration; 3, small vesicular and papular formation; 4, a large confluent vesicle.

One reason many physicians have found the test more or less unsatisfactory has been that they have neglected to use enough test substances to find the offending agent. They forget that an individual may acquire a contact sensitization to almost any substance at any time—even after life long contact with the particular substance. It is well to note that occasionally the skin may develop a localized sensitization. In this case the patch test must be placed upon an area that was previously involved or otherwise the test will be negative.

The second discovery which has helped the knowledge not only of eczema but of all allergic and immunological problems is the indirect or passive transfer test. This is the Prausnitz and Küstner reaction. Diagnostically it is rarely used except as a confirmatory test and in individuals who suffer from generalized eruptions and who present no healthy skin for direct testing.

It should be emphasized that more and more cases of so-called eczema are being solved by diligent search for definite external irritants, and if the reports continue the list of reported external irritants to which the human race may be susceptible will soon include almost everything in the mineral, plant, and animal kingdoms.

Before leaving the eczematous dermatoses

due to external irritants, it seems important to mention a condition which is not uncommon in Colorado—namely, ragweed dermatitis. It is unfortunate that all three types of ragweed are found in this locality, the short, the giant and the western ragweed. Brunsting and Anderson⁵ of the Mayo Clinic have recently shown that an individual may be sensitive to only one of the group or to all of them.

The patient suffering from ragweed dermatitis is apt to have seasonal occurrences (lasting from early spring to late fall) of a diffuse eczematoid eruption, most often limited to the exposed surfaces. Those who have suffered many years may occasionally have more or less trouble the whole year. Farmers, ranchers, railroad section hands, etc., are most subject to the process, but city dwellers by no means escape.

The reason that this common condition has escaped the attention of the allergist, who thinks of ragweed only in terms of hay-fever and asthma, is the fact that the exciting factor is usually oily fractions of the plant (either pollen, stalk or leaves). On the other hand, it is the protein fraction of the pollen which is the cause of hay fever and asthma associated with ragweed. This important fact, that ragweed dermatitis is caused by the oily fraction of the plant, was established largely through the work of Coca⁶, Gay and Ketron⁷, and Pascher and Sulzberger⁸. The ordinary protein sensitization tests for ragweed are almost useless as a diagnostic aid in the condition; on the other hand simple patch tests with either the whole pollen or leaves will readily produce strong positive tests in susceptible individuals. Preseasonal or even desensitization treatment during the season with the ragweed oil gives excellent therapeutic response in the majority of cases.

There are many other plants in Colorado capable of provoking an eczematous dermatitis, but the ragweed, we believe, is by far the most common.

The Dermatomycoses

Hypersensitiveness to the fungi or the products of the fungi is often overlooked. Patients presenting an acute erythematous

vesicular or exudating dermatitis of the feet, may have a mycotic infection as the background, but this must be treated as an eczematous dermatitis, which it really is. The fungicidal remedies must be disregarded for the time being; preparations containing salicylic acid, such as Whitefield's ointment are contraindicated for such a dermatitis. Potassium permanganate soaks for a few days, followed by White's crude coal tar ointment will usually cause a rapid improvement. After the acute dermatitis has subsided, stronger preparations directed against the mycotic infection can be used with more safety. One repeatedly sees dermatitis venenata of the hands and feet following the use of preparations containing salicylic acid which were prescribed by a physician or used by the patient himself for an imagined mycotic infection. Mycotic infection of the hands is considered extremely rare. The majority of eczematoid and vesicular processes on the hands are dermatophytids (primary foci on the feet), eczematous dermatitis (contact dermatitis), streptococci infections, and possibly dyshidroses. Other dermatoses of the hands and feet which resemble ringworm infections but which are not mycotic, include acrodermatitis continua (dermatitis repens) and pustular psoriasis. Andrews and his co-workers⁹ have recently called attention to a recalcitrant pustular condition of the palms and soles, sometimes caused by focal infections.

Many eczematoid ringworm infections that are resistant to the above therapy respond very favorably and permanently to fractional doses of x-ray. However, some recur or show no response to radiation, in which case trichophytin is certainly worthy of trial. Trichophytin is prepared from mixtures of various strains of the ordinary epidermal mycotic organisms. It is used both diagnostically and therapeutically by intradermal injections into the skin of the forearm.

In addition to the fact that an individual may develop a sensitization to previously innocuous fungi, a dermatitis due to fungi might prepare the way (through injury, maceration, friction, etc.) for sensitization to other external irritants such as leather or dyes¹⁰.

Summary

There was a brief resume of the more recent and important developments pertaining to eczema and its terminology.

Eczema was discussed under the classification given by Coca for allergic diseases of the skin: 1. The inherited atopic dermatitis. 2. Contact dermatitis. 3. The dermatomycoses. Emphasis was laid on the importance of the patch test in eczematous dermatitis and on ragweed dermatitis as found in Colorado.

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LEUCOCYTOSIS IN CHRONIC PULMONARY TUBERCULOSIS*

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Uncomplicated chronic pulmonary tuberculosis is usually considered a disease which seldom causes a leucocytosis. However, the fact is well known that an increased total white blood cell count occurs sometimes, especially in far-advanced cases. For example, Lord¹ says: "Without complications, leucocytosis is usually absent in early and moderately advanced phthisis, but often present with relative increase of polynuclear neutrophiles in febrile and far-advanced cases with cavity-formation and in acute general miliary tuberculosis. Elevation of the white count may at times be due to mixed infection." Todd and Sanford² state that tuberculosis does not cause a leucocytosis except when invading meninges or when complicated by a mixed infection. The Flinns³, in a study of the blood picture in active pulmonary tuberculosis, found the average total leucocyte count to be lowest in minimal cases and highest in very far-advanced cases.

The purpose of this paper is to present some observations on the frequency and degree of leucocytosis found in a series of cases of uncomplicated chronic pulmonary tuberculosis.

In health the total leucocyte count varies greatly in different individuals and in the same person at different times⁴. The normal range is usually given as between 5,000 and 10,000 cells per cubic millimeter of blood, with an average of 7,500. Nicholson⁵ however, gives the normal variation as being from 4,000 to 12,000 in persons who are normally active and from 4,000 to 9,000 in persons at rest in bed on a light diet. The count varies during the 24 hours, being highest in the afternoon regardless of the intake of food. According to Todd and Sanford², a physiological leucocytosis of 12,000 to 14,000 may occasionally occur during the digestion of a heavy meal.

Through the courtesy of Dr. C. A. Bundsen, the records of the Swedish National

Sanatorium at Englewood, Colorado (altitude a little over 5,000 feet), were studied with reference to the total leucocyte count. Three hundred and nine consecutive cases of uncomplicated chronic pulmonary tuberculosis, in which routine total counts had been made and in which the other data were sufficiently complete, form the material for this study. There were 162 males and 147 females, all of the white race. The patients varied in age from 13 to 74 years, most of them were between the ages of 20 and 40. Since it was desired to investigate the total white cell count in the general run of cases of uncomplicated chronic pulmonary tuberculosis, cases with any tuberculous complications were excluded, as were also those undergoing artificial pneumothorax treatment and any patients who had had a hemorrhage shortly before the count. Cases with any non-tuberculous complication which might influence the white count, such as pneumonia, empyema, chronic appendicitis, or pyuria from any cause, were also excluded.

Some cases had one count, some several, but for the purpose of this study only the first count after admission to the sanatorium was used. It is realized that there is a considerable variation in the number of leucocytes from time to time, but it was thought that the use of one count in each case would suffice to give the approximate average count in the different stages of the disease, and some idea of the frequency with which leucocytosis occurs. Nearly all the counts were done by the same technician, Mr. Alfred Nygard, who usually took the blood for them between 9 and 11 a. m.

The cases were classified according to the standards of the National Tuberculosis Association, on the basis of the x-ray findings and the physical signs. Out of the entire series of 309 cases of uncomplicated pulmonary tuberculosis included in this study, thirty-three were classified as minimal. The total leucocyte counts in the minimal cases ranged from 3,600 to 10,500, with an average

*Read at the meeting of the Denver Sanatorium Association, February 27, 1934.

count of 6,778. In forty-seven moderately advanced cases the average count was 7,763, the lowest being 4,200 and the highest 14,000. Of the forty-seven cases, six, or 12 per cent, had a count over 10,000. Two hundred and twenty-nine patients with far-advanced tuberculosis showed an average count of 10,576. The lowest count in this class was 3,700 and the highest was 25,000. Considering in more detail the 229 far-advanced cases, 107 of these, or 46 per cent, showed a leucocyte count over 10,000; fifty-five cases, or 24 per cent, had a count over 12,000; twenty-four cases, or 10 per cent, had a count over 15,000, and six patients, or 2 per cent, had a leucocytosis over 20,000.

Leaving out of account a few cases in which the presence of a cavity was uncertain, far-advanced cases with cavitation or with definite evidence of honeycombing as seen on the x-ray, numbered 204. The average white blood cell count in these was 10,749. Cases classified as far-advanced but without cavitation numbered twenty-one, and had an average count of 8,371. In the whole series of patients studied, there was evidence of cavitation or some degree of honeycombing in every case in which the total leucocyte count was over 16,000, and in 90 per cent of sixty-six cases in which it was 12,000 or more.

Considering again only the far-advanced cases, and omitting a few in which the temperature record was missing, eighty-four patients had normal temperatures at the time of the count and for at least a few days before and afterward. (Temperatures were taken daily at 7 a. m., 3 p. m. and 7 p. m.) The average count in these cases with normal temperature was 9,132. On the other hand, in 139 patients with fever, the average count was 11,411. Any temperature over 98.6 was considered fever. The high counts did not always occur in fever cases, however. Of eighty-four far-advanced cases with normal temperatures, ten had counts over 12,000, the highest being 20,800.

In seventy-seven of the far-advanced cases, erythrocyte sedimentation tests were done by Mr. Nygard, using Cutler's tubes. The result in each case was recorded as the

number of millimeters through which the red cells settled in one hour. If we consider a sedimentation distance of 2 to 8 mm. in the first hour as normal for men and from 2 to 10 mm. as normal for women, we find only two cases out of the seventy-seven within normal limits. In all the others the sedimentation rate was increased. For the sake of brevity, the figures will not be given in detail, but it will only be stated that the total white count was much higher, on the average, in those cases with greatly increased sedimentation rates (over 20 mm. in one hour), than in those with normal or slightly increased rates. Similarly, those patients of the far-advanced group who became worse or died showed a higher average leucocyte count than did those who improved. In each stage of the disease the younger patients (under 30 years of age) were found to have higher average counts than the older patients.

As to any possible significance of a leucopenia, there were too few instances to warrant any conclusions. Only eleven patients in the whole series of 309 cases had a count under 5,000. These eleven cases represented all stages of the disease, and nearly all of them improved. It will be noted, however, that the average count of 6,778 in the incipient cases is somewhat below the usually accepted normal of 7,500.

The results of this study seem to show that, on the average, the more extensive and active the tuberculous process, and the worse the prognosis, the higher the white count is. However, the information given by the total leucocyte count alone in any particular case is very limited, because many patients with high counts improve and others with normal total counts have very abnormal differential counts and do badly. To obtain the most information from the leucocyte count in tuberculosis, the total and differential counts should be considered together. The significance of the differential count and of the total number per cu. mm. of each type of leucocyte is beyond the scope of this paper and the reader is referred especially to the interesting work of the Flinns^{8,9} and of Medlar⁷.

The objection may be made that some of the cases showing a leucocytosis may have had complications which were overlooked and which helped to produce a high count. This possibility cannot be denied, but it has been avoided so far as possible. Even if it did occur in a few cases, the results would not be materially affected. The presence of a secondary infection with pyogenic organisms is not considered a complication. The thought occurs that some of the high counts may have been due to a digestive leucocytosis, but why should far-advanced cases have more leucocytosis due to digestion than the incipient cases?

Whether the leucocytosis found so frequently in far-advanced tuberculosis is due to the effects of the tubercle bacilli alone, or whether it is due in part or wholly to a mixed infection, is an unsettled question. The subject of secondary infection in tuberculosis has been studied for many years and widely differing opinions have been held. Some investigators have concluded that pyogenic organisms are very important in producing such manifestations as fever, hemoptysis, and presumably leucocytosis, though this is not specifically mentioned^{8,9,10}. Others believe that all the pathology and symptoms can be produced by a pure infection with the tubercle bacillus alone and that other organisms which are found in the sputum rarely have any influence on the course of the disease^{11,12,13,14}.

Cunningham and others¹⁵ consider a leucopenia to be characteristic of a pure tuberculous infection and believe that a leucocytosis is evidence of a mixed infection. On the other hand Medlar and Kastlin¹⁶ and Anderson¹⁷ are of the opinion that leucocytosis can be produced by an uncomplicated tuberculous infection.

The writer has attempted no correlation between the occurrence of leucocytosis and the presence of organisms of mixed infection as found in routine sputum examinations of the patients studied, because these organisms often come from the mouth or throat, where they are normally present, or from the bronchi, and their importance is doubtful.

Medlar⁷, who has carried on a very extensive investigation of the total and differential counts in tuberculosis, has found that when the polymorphonuclear neutrophils remain consistently above the normal (5,000 per cu. mm. of blood) in a tuberculous patient, without complications to account for the increase, it means that tuberculous abscess-formation or cavitation is present, or that an ulcerous process in the lung is extending. He believes that a pure tuberculous infection, when undergoing abscess-formation, calls for an increased number of neutrophils at the site of the suppuration, and that this is reflected in an increase of these cells in the blood. He states¹⁸: "The old idea that an increased total count and increased neutrophils indicate secondary infection with so-called pus-producing cocci is undoubtedly largely erroneous. When such counts are found in tuberculous cases they always signify a very unfavorable type of pathology, regardless of the clinical status of the case." He believes, however, that after cavities have formed, and especially when they have existed for a long time, secondary invaders may be present, and in rare instances they may aggravate the tuberculous process.

The fact that a high leucocyte count is rather frequently present in tuberculosis is of practical importance when an acute surgical condition of the abdomen is suspected in a tuberculous patient. In such a case the white blood cell count must be interpreted with caution, because a leucocytosis, if present, may be accounted for by the pulmonary tuberculosis itself.

Tuberculous enteritis will be mentioned briefly. This complication may give signs and symptoms closely simulating those of an attack of appendicitis. In a small series of twelve cases of far-advanced pulmonary tuberculosis complicated with tuberculous enteritis, two of these patients having also a tuberculous laryngitis, the leucocyte counts ranged from 3,400 to 19,000, with an average of 12,620.

Summary and Conclusions

A review of the literature casts doubt on the correctness of the frequently held theory

that leucocytosis in pulmonary tuberculosis is always due to a mixed infection with pyogenic organisms.

The total leucocyte count is lowest, on the average, in incipient cases of tuberculosis and highest in far-advanced cases. There are numerous individual cases which are exceptions to this rule, however.

Leucocytosis is rare in uncomplicated minimal or moderately advanced tuberculosis but fairly common in far-advanced cases.

In a study of one total leucocyte count in each of 229 unselected cases of far-advanced chronic pulmonary tuberculosis without complications, a count over 12,000 was found in 24 per cent of the cases, and occasionally the count was as high as 20,000 or 25,000. The highest counts occurred in cases with cavity-formation.

That tuberculosis may cause a leucocytosis is an important fact to keep in mind when interpreting the significance of a high white blood cell count in a suspected acute surgical condition of the abdomen in a tuberculous patient.

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HAY FEVER FLORA OF THE PIKES PEAK REGION

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During the past two years I have been attempting to locate, identify and define the hay fever producing plants of the region about Colorado Springs and Manitou. The list is, as yet, not complete, although it represents probably most of those wind borne plants that are factors in the production of allergic symptoms.

Plants such as goldenrod, dandelion, sunflower, roses, sweet pea, fruit trees and several others are of comparatively little importance because the excessive weight of the pollen does not make it a very great factor in wind pollination. The pollen of these

plants may cause hay fever, but it usually requires handling of the plant or a very close contact.

The period of pollination is somewhat variable in Colorado. If a cold wet spring occurs the growth is usually slow, while if the spring is warm and dry the pollination may be from a month to six weeks earlier than in the case of a cold spring. In order to determine the pollen season with any degree of accuracy it would be necessary to record the pollinating period over a period of several years. In the list below I have prepared the pollinating season as arrived

at by taking not only my own findings but from those of Waring¹, Waring and Pope², Mullin and Gilmore³, and Penland⁴.

*Indicates plant is an occasional cause of hay fever.

**Indicates plant is a rather common cause of hay fever.

***Indicates plant is a common cause of hay fever.

****Indicates plant is a very frequent cause of hay fever.

TREES

1. *Acer Negundo*. Box elder. (*). *Aceraceae*. Not very common, planted in a few yards. Large amount of pollen. April-June.

2. *Acer saccharinum*. Soft maple. Common in yards and parkings. Large amount of pollen. March-May.

3. *Betula fontinalis*. Western birch. Not very common, a few near the canyons. Large amount of pollen. April.

4. *Fraxinus americana*. Ash. Rather common. Planted in many parts of the city. Large amount of pollen. April-May.

5. *Juniperus monosperma*. Cedar. Very common in the city and in the canyons. Large amount of pollen. March-May.

6. *Juniperus scopulorum*. Cedar. Very common in the city and in the canyons. Large amount of pollen. March-May.

7. *Populus acuminata*. Cottonwood. (*). Very common throughout the city and along streams. Large amount of pollen. April-June.

8. *Populus augustifolia*. Narrow leaf Cottonwood. (***). Common in the canyons and in the city. Large amount of pollen. April-June.

9. *Populus Sargentia*. Western Cottonwood. (***). Common in the city as shade trees. Large amount of pollen. April-June.

10. *Populus tremuloides*. Quaking Aspen. Very few in the city, many in the surrounding mountains. Large amount of pollen. April-May.

11. *Quercus Gunnisonii*. Scrub oak. Very common in the canyons, many planted in yards. Large amount of pollen. April-May.

12. *Ulmus americana*. Elm. Very common planted tree about the city. Large amount of pollen. April-May.

GRASSES

1. *Agrostis palustris-alba*. Redtop. (***). Few plants on the mesa. Small amount of pollen. June-October.

2. *Anthoxanthum odoratum*. Sweet vernal grass. (**). Fairly common. Small amount of pollen. June-July.

3. *Agropyron Smithii*. Colorado blue stem. (*). Common along the roads and in waste spaces. Cultivated for hay along outskirts of the city. Moderate amount of pollen. June-August.

4. *Andropogon halapensis*. Johnson grass. (*). Cultivated in a few places. Moderate amount of pollen. June-August.

5. *Avena fatua*. Common wild oat. Present on the mesa. Moderate amount of pollen. June-August.

6. *Avena Barbata*. Slender wild oat. Present on the mesa. Small amount of pollen. June-August.

7. *Bromus hordaceus*. Soft cheat. Few plants. Small amount of pollen. May-June.

8. *Bromus inermis*. Awnless grass. (*). Few plants. Small amount of pollen. June-August.

9. *Bromus secalinus*. Cheat. Few plants. Small amount of pollen. June-August.

10. *Cynodon Dactylon*. Bermuda grass. Does not grow well, freezes out in the winter, present in only a few places. Moderate amount of pollen. June-August.

11. *Dactylis glomerata*. (*). Orchard grass. Common in moist places, ditches. Moderate amount of pollen. June-July.

12. *Distichlis spicata*. Salt grass. (*). Present on alkali flats. Fairly common. Moderate amount of pollen. June-September.

13. *Elymus triticoides*. Alkali Rye Grass. Present on plains and mesa. Small amount of pollen. June-August.

14. *Elymus candensatus*. Giant Rye Grass. (*). Fairly common in uncultivated places. Moderate amount of pollen. June-August.

15. *Festuca rubra*. Red fescue. (*). Fairly common in uncultivated lots. Small amount of pollen. June-August.

16. *Festuca elatior*. Short fescue. Not very common. Small amount of pollen. June-August.

17. *Holcus halapensis*. Johnson Grass. (*). Found rather commonly as a lawn grass. Moderate amount of pollen. June-August.

18. *Koeleria cristata*. Koelers grass. (*). Found rather infrequently over the city. Small amount of pollen. July-September.

19. *Iolium perenne*. Perennial Rye Grass. Fairly common grass. Moderate amount of pollen. June-August.

20. *Poa annua*. Annual blue grass. (***). Very common grass in all parts of the city. Small amount of pollen. May-August.

21. *Poa pratensis*. June grass. (***). Very common as a lawn grass. Small amount of pollen. May-August.

22. *Paspalum distichum*. Joint grass. (*). Rather common grass along road to Manitou and a few places over the city. Moderate amount of pollen. July-September.

23. *Phleum pratense*. Timothy. (*). Rather commonly found at the edge of the city and to the west near Manitou. Moderate amount of pollen. July-August.

24. *Bouteloua procumbens*. Gramma grass. (*). Very common grass in the fields and on the hillsides. Moderate amount of pollen. July-September.

WEEDS

1. *Acnida tamariscina*. Western water hemp. (****). Grows rather profusely in moist places, along ditches, and on the outskirts of the city along the roads. Large amount of pollen. July-September.

2. *Amaranthus retroflexus*. Pigweed. (***). Common in alleys, along the roads and on vacant lots. Moderate amount of pollen. July-September.

3. *Ambrosia elatior*. Short ragweed. (***). Least common of the ragweeds, grows along the roadsides. Moderate amount of pollen. August-October.

4. *Ambrosia psilostachya*. Western ragweed. (***). Fairly common. Moderate amount of pollen. July-October.

5. *Ambrosia trifida*. Giant ragweed. (****). Most common of the ragweeds. Grows along roads, ditches, railroad tracks and vacant lots. Large amount of pollen. July-October.

6. *Artemisia frigida*. Mountain sage. (****). Very common all around the city and mesa. Moderate amount of pollen. July-October.

7. *Artemisia ludoviciana*. Prairie sage. (****). Common outside the city on the mesa and plains. Moderate amount of pollen. July-September.

8. *Artemisia tridentata*. Sagebrush. (**). Some found on the hills near the city. Large amount of pollen. July-September.

9. *Artemisia* *vulg.* *heterophylla*. Mugwort. Very common on the hills near the city. Small amount of pollen. July-August.

10. *Atriplex canescens*. Bushy atriplex. (*). Fairly common in the region toward Manitou. Large amount of pollen. June-August.

11. *Atriplex rosea*. Rose orache. Present outside the city, alkali flats. Moderate amount of pollen. July-August.

12. *Chenopodium album*. Lamb's quarters. (****). Very common in alleys, vacant lots and along roads. Moderate amount of pollen. June-September.

13. *Franseria acanthacarpa*. False ragweed. (***). Found on vacant lots, along roadsides. Moderate amount of pollen. August-September.

14. *Iva Axillaris*. Poverty weed. (*). Rather common on vacant lots and near the outskirts of the city. Moderate amount of pollen. August-September.

15. *Iva xanthifolia*. Careless weed. (**). Very common along roads, waste places and streams. Moderate amount of pollen. July-September.

16. *Kochia Scoparia*. Burning brush; Summer cypress. (****). Very common along railroad tracks, vacant lots, waste places, and along ditches. Large amount of pollen. July-October.

17. *Medicago sativa*. Alfalfa-Cultivated. Some along roads where it has escaped cultivation. Insect pollinated. May-September.

18. *Rumex acetosella*. Sheep sorrell. (*). Rather common on vacant lots and on the road to Manitou. Moderate amount of pollen. July-September.

19. *Salsola Kali Tenuifolia*. Russian thistle. (****). Very common all over the plains, vacant lots and waste places. Moderate amount of pollen. July-October.

20. *Xanthium pennsylvanicum*. Cocklebur; Clotbur. (**). Rather common on vacant lots, waste places and along roadsides. Moderate amount of pollen. July-October.

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CASE REPORTS

RECOVERY FOLLOWING ACUTELY INFLAMED APPENDIX PASSED BY BOWEL INTACT*

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LAMAR

During these times of economic stress and strife, it seems unfair that nature should be so unkind as to deprive us of a surgical fee by auto-amputation and passage of the appendix by bowel.

In a very exhaustive search of the literature, extending over a period of six months, we have not been able to find an authentic case where the appendix was passed by bowel. In a letter from Dr. L. M. Wallheiser of the Consulting Bureau of Service of the W. F. Pryor Company, he states that "although our various research centers have spent much time on this inquiry, they have not been able to find anything similar to your case. As far as we can determine, there have been no cases reported in the literature in which the appendix has been passed by bowel intact."

The department of Literary Research of the American College of Surgeons was able to add very little to the subject. However, a few cases of auto-amputation of the appendix have been reported in the literature, but none passed by bowel intact.

J. R. Judd¹ reports the following case:

"The patient from whom the appendix was removed was a man, aged 24, with an indefinite history of appendix inflammation. During the course of a kidney operation, the appendix was exposed through the lumbar incision and was brought up into the wound. It was found to be connected with the cecum only by a fine adhesion, so delicate that simply pinching it between the fingers sufficed to separate it. Careful probing failed to disclose any opening into the cecal cavity. The proximal end was also solid. The appendix was 7 cm. in length, not dilated, and

*Read before the summer meeting of the Arkansas Valley Medical Association in Canon City, Colorado, July 14, 1934.

contained a small amount of mucoid material. It showed the lesions of a chronic interstitial inflammation."

Dr. Jerome Wagner² describes the following interesting case:

"The appendix was sought, but only a stump of tissue was found about a quarter of an inch in length and as thick as a watch. A mass, however, was palpated in the sub-cecal fossa, which was bound down by a few slight adhesions, but readily delivered, and which proved to be the appendix. It was still attached to an apparently normal mesentery, though both ends of the appendix were free with the lumen occluded. The



Fig. 1. Photograph of an acutely inflamed appendix passed intact by bowel.

appendix was as thick as a good sized thumb, completely covered with nodules, such as were found on the pelvic organs, the appearance being very gangrenous. After ligating the mesentery, the appendix was removed.

"The specimens obtained at operation I sent to the pathological laboratory at Cornell University Medical College, where they were examined by Professor Ewing. He reported the findings as a primary carcinoma of the ovary, with a secondary carcinoma of the appendix."

Dr. A. L. Benedict³ in *International Clinics*, under the following heading, "Gangrenous Appendicitis with Spontaneous

Cure Due to Discharge Through the Intestine," states:

"I have personally witnessed only one ante-mortem section which revealed the discharge of a gangrenous appendix through the alimentary canal. This case was that of E. B. (1909-'02, No. 86), an express messenger, aged about 40, of good habits, though his attending physician termed him a drunkard because he had occasionally taken small amounts of beer at meals. This patient resided in Pennsylvania and I had been informed, by letter, as to his progress for nearly a month. He had been reported alternately as dying and recovering, so that when I was finally summoned I took a surgical friend with me. When seen the patient had, according to pretty accurate description, already vomited part of the gangrenous appendix and had passed pus and gangrenous shreds by the rectum. The lower right quadrant of the abdomen bulged visibly and the presence of a large abscess was even more plain by palpation, though the attending physician insisted on regarding the case as one of general peritonitis. The patient was in advanced state of septicemia. Operation was advised as affording the only possible hope of recovery. An abscess, with necrotic shreds of tissue and scybalous masses, was found communicating with the bowel. I do not remember the part of the bowel and I am not even sure that it was identified, as it was obvious that the operation should be as short as possible and that evacuation and drainage were the only feasible objects. The patient died in a few hours."

The above case is so lacking in scientific proof that it would be utterly impossible to accept it as a proved case. The Doctor did not even see the specimen and there was no pathological report.

We were both thrilled with the pathological report in our case and our scientific curiosity has been gratified, since we believe this is the only case that has ever been reported in the literature.

REPORT OF CASE

The patient, R. W., 21 years of age, was first seen on January 1, 1934. The following history was obtained: Perfectly well until noon, December 22, 1933, when he began to feel slightly nause-

ated. By evening he was quite nauseated and dizzy and a dull generalized abdominal pain had developed. That night he vomited once. The following morning the pain had centered in the right lower abdomen, and an ice pack was applied which gave relief. He ate nothing and remained in bed for three days, and then gradually went back to normal activity and diet by December 27. The following day, December 28, 1933, he began to be chilly and had considerable generalized aching but no pain. His temperature rose during the day to 102 degrees. Temperature varied from 100 to 104.6 degrees for three days. He was not nauseated, had no pain, and the appetite was only slightly impaired. On January 1, there was a moderate amount of pain and soreness in the right lower abdomen. Family history, essentially negative. Past history, negative except for frequent attacks of "indigestion" during past year.

Physical examination on January 1 showed a well developed white adult of about twenty years who did not appear acutely ill. General physical examination, essentially negative. In the right lower quadrant of the abdomen there was a distinctly visible, palpable, indurated mass, about the size of a baseball, which was very tender, firm, and apparently fixed. A diagnosis of a well walled off appendiceal abscess was made and a hot wet pack ordered. That afternoon and throughout the next day the temperature remained at about 102.5 degrees. On January 2 an enema was given with no returns except what was reported as "two small pieces of dark colored mucus."

On the morning of January 3 the appendix was recovered from the stool. It is three inches in length and closed at one end. The wall is very thin, glistening and smooth, and careful examination reveals no point of rupture. The lumen is filled with soft fecal matter. Along one side the attachment of the mesoappendix can be detected.

Following this occurrence he made a rapid and uneventful recovery.

Pathological Examination: "Sections of the appendix reveal an acute appendicitis with necrosis of the lining epithelium and marked leukocytic infiltration.

"The wall is very thin. The glands and epithelium of the mucosa are all necrotic. There is a marked infiltration with leukocytes in the sub-mucosa and muscular coat."

Since we have been unable to find any record of a case similar to this, we feel justified in venturing an opinion as to the pathologic process which took place. One of us has seen a gangrenous appendix deeply embedded in the posterior wall of the cecum, and it seems entirely possible that, if destruction of the walls of the cecum had continued, this appendix might have sloughed into the cecum and passed by bowel. However, the appendix which was passed in this case was not gangrenous, so it seems unlikely that this was the mode of entry into the bowel. In speculating further we wonder if it might not have happened in this manner: A fecolith became impacted in the extreme proximal part of the appen-

diceal lumen, producing gangrene and sloughing, thus allowing the appendix, which was by this time embedded in an abscess, to pass into the cecum without itself becoming gangrenous.

REFERENCES

- ¹Judd, J. R.: Journal A.M.A., 1915, Vol. LXV, No. 4.
- ²Wagner, Dr. Jerome: Medical Record, August 23, 1913, page 339.
- ³Benedict, Dr. A. L.: International Clinics, Vol. 4, 15th series.

PUBLIC HEALTH NOTES

Facts About Public Health in the United States

From 1911 to 1931 the average length of life in the United States increased about seven years.

The industrial policyholders of a large insurance company gained more than twelve years in the expectation of life (at birth) during the last two decades.

In 1900, 170 out of each 1,000 babies died during the first year. In 1932 the corresponding figure was 58. This means that out of every 1,000 babies born in 1932, 112 were spared the death they would have suffered in 1900.

A baby born in 1920 stood about seven chances out of 1,000 of falling a prey to diphtheria. The risk to a baby born in 1930 was about one-third as great.

In 1900 three times as many people died of tuberculosis as in 1932.

Trudeau established his famous tuberculosis sanatorium in 1884. Now there are in the United States more than 600 sanatoria with more than 80,000 beds.

Tuberculosis is the leading cause of death in the age group 15 to 45.

Throughout the United States we spend for public health through federal, state, city, and rural taxes on average of 50 cents per capita a year.

The average American spends about \$30 a year for medical treatment, drugs, etc., and 99 cents for health.

The Isolation Time of Scarlet Fever

Drs. J. E. Gordon and G. F. Badger of the Division of Epidemiology, Health Department, Detroit, Michigan, have made observations in Detroit since 1929 with a view to restricting the quarantine period to the shortest term consistent with safety.

A review of American administrative practice demonstrated an isolation period of about four weeks as the accepted standard for scarlet fever. Twelve among 44 of the largest cities of the United States required restrictions of the patient for at least 28 days, and in 20 cities the period was 30 days. The minimum isolation varied from 21 days in nine cities, to 42 days in two.

The conclusions of the Detroit investigators follow:

"A shorter isolation period for scarlet fever during summer and autumn has been justified by actual trial under field and hospital conditions. The infecting case rate did not increase when adults were isolated for periods as short as two weeks, and children for three weeks."

"Adults with scarlet fever are less likely to transmit the disease than are children. A reduction in the isolation period from four weeks to three weeks and subsequently to two weeks was tried and showed that the shorter period for adults led to no greater likelihood of subsequent infection among familial contacts. Visits to the patient after release showed that there was no tendency toward development of complications or exaggeration of other medical problems of convalescence as the result of this program."

"Approximately 9,000 days of isolation were saved for all patients with scarlet fever in Detroit in 1933. The isolation of adult patients with uncomplicated scarlet fever was decreased by 30 per cent, compared with former practice. Control of the disease was equally satisfactory, judged by the attack rate among contacts and the infecting case rate of convalescent patients. The economic advantage of saving no more than a single week for the thousands of patients with scarlet fever is material."

"These experiences in isolation, in the reporting of the disease, and in its communicability, suggest pertinently the development of an altered prescription for satisfactory administrative control of scarlet fever. Such a program should give greater emphasis to home isolation, but provide for adequate hospital care when circumstances are otherwise unfavorable or there is medical need. Hospital isolation should be as brief as possible, consistent with the condition of the patient and the safety of susceptible children at home."

"These modifications should be correlated with the type of scarlet fever present. It is probable that in mild climates the restrictions might be reduced further than in temperate climates. When the disease is severe in character, longer periods of isolation may be required."

Life Expectancy Greater Than in 1919

In a report to the journal, *Human Biology*, Drs. Louis I. Dublin and Alfred J. Lotka, statisticians for the Metropolitan Life Insurance Company, show by the data they have compiled that people living today may reasonably expect to live longer than was true fifteen years ago.

Their report indicates that a boy born today may expect to live fifty-nine years. His older brother born in 1919 or 1920 had an expectation of life at birth of only fifty-four years. A girl born today, may expect to live for nearly sixty-three years, an increase of six years over the life expectancy of a girl born in 1919 or 1920.

The boy who has already survived the first ten years of life may expect to reach the age of nearly sixty-five, and the ten-year old girl is expected to reach sixty-seven.

The statisticians show that the man who has already reached the age of sixty may expect to live another fourteen years, and the woman at sixty should live to be seventy-six.

Doctor Dublin and Doctor Lotka believe the time is coming when the newborn child may be expected to reach the biblical three score years and ten.

BOOK REVIEWS

Fractures, Dislocations and Sprains. By John Albert Key, B.S., M.D., Clinical Professor of Orthopedic Surgery, Washington University School of Medicine; Associate Surgeon, Barnes, Children's and Jewish Hospitals, St. Louis; and H. Earle Conwell, M.D., F.A.C.S., Orthopedic Surgeon, Tennessee Coal, Iron and Railroad Company, Birmingham, Ala.; Orthopedic Chief, Traumatic and Orthopedic Services, Employees' Hospital, Fairfield, Ala.; member, Advisory Editorial Staff, Journal of Bone and Joint Surgery Pp. 1164, with 1165 Illustrations. Cloth. Price \$15.00. St. Louis: C. V. Mosby Co.

The authors of this comprehensive treatise on the treatment of fractures, dislocations and sprains are men of large experience in industrial and traumatic surgery and have thus had very extensive opportunities to work out the most effective methods of treatment. In addition to the recognized and established methods of treatment, many individual methods of technic, which have been proved effective, are described and are valuable additions to the resources of the attending surgeon. The illustrations are a great aid in the understanding of the text. Both for teaching, reference, and as a guide in treatment, this is a valuable addition to the books dealing with these phases of bone and joint work.

H. W. WILCOX.

A Text-Book of Medicine. By American authors. Edited by Russell L. Cecil, A.B., M.D., Sc.D., Professor of Clinical Medicine, Cornell University Medical College; Associate Attending Physician, New York Hospital, New York City. Associate Editor for Diseases of the Nervous System, Foster Kennedy, M.D., F.R.S.E., Professor of Neurology, Cornell University Medical College; Director, Department of Neurology, Bellevue Hospital, New York City. Third Edition, revised and entirely reset. Philadelphia and London: W. B. Saunders Company. 1933 (October).

This is an authoritative book. It was written by 141 men, all of them students and observers of the separate disease entities which they describe—men who are specialists in their fields. There are 229 subject headings; 1,584 pages.

In this up-to-date book there are the works of eleven more contributors than were in the first edition published in 1927. There are fourteen new articles by new contributors, not in the second edition last reprinted in March, 1933.

The style for the most part is simple, direct, and readable, reflecting the experience of the authors, of whom a large percentage are clinical teachers in university medical institutions. It is a book well designed as a text for medical students as well as a ready reference for practitioners. The index of eighty pages is complete and easy to use.

The book is conservative. The treatments are those that have been proved over and over again. However, each article contains reference to experimental and investigative work of recent years, and a weighted bibliography.

EDGAR DURBIN.

Our Mysterious Life Glands and How They Affect Us. By William J. Robinson. New York: Eugenics Publishing Company. 1934.

This is a popular treatise on the glands of internal secretion. It is written in a popular style so that the layman can understand it and at the same time it is scientifically fair and correct. It is not a book for the endocrinologist but it is a book which may be read with benefit by the practitioner who has not interested himself particularly in this specialty. The main points of what is important in each of the endocrine glands is briefly given. The last of the book is devoted to the vitamins and their significance stated in plain language.

ARNOLD MINNIG.

A Primer for Diabetic Patients. A Brief Outline of the Treatment of Diabetes with Diet and Insulin, Including Directions and Charts for the Use of Physicians in Planning Diet Prescriptions. By Russell M. Wilder, M.D., Professor and Chief of the Department of Medicine of the Mayo Foundation, University of Minnesota; Head of Section on General Metabolism, Division of Medicine, The Mayo Clinic. Fifth Edition, Reset. 172 pages. Philadelphia and London: W. B. Saunders Company, 1934. Cloth, \$1.75 net.

The dietetic management of diabetes mellitus may be divided into two types differing very materially one from the other. In one type the fundamental principle consists of giving a diet composed of relatively large amounts of carbohydrate and small quantities of fat, while the other type is diametrically opposed—namely, large quantities of fat and small amounts of carbohydrate in the diet.

Doctor Wilder follows the latter method of treatment, while the reviewer of this Primer emphatically follows the other method and believes that a diet which incorporates more carbohydrates and less fat has many advantages over the other method.

The contents of this Primer so far as diets are concerned are based entirely on the method of giving large quantities of fats and small amounts of carbohydrate, and for physician or patient who prefers this type of diet the book is ideal, and for all concerned there are many concise statements concerning diabetes mellitus, its care and treatment, which are of value.

There is some very pertinent advice relative to quack medicines, and there are the usual instructions regarding urinary tests. The sections on food facts and maintenance diets are excellent, and it is gratifying to note that the author does not advise the use of the popular but troublesome "insulin syringe." Sections are devoted to such subjects as insulin reaction (which is no longer considered a dangerous thing), complications such as acidosis, coma and gangrene, and these various topics are presented to the patient in very excellent form.

Another thing of much practical value is the use of household measures as well as the metric system. Of course, the diet tables are all based on high fat-low carbohydrate intake and many substitutes are offered in an effort to relieve the monotony which is a necessary part of this type of diet.

A list of questions helps to impress the lessons upon the patient and there are also to be found in the book emergency diets, food tables, etc.

T. R. LOVE.

Arteriosclerosis. A Survey of the Problem. A Publication of The Josiah Macy, Jr., Foundation. Edited by E. V. Cowdry, Ph.D., Washington University, St. Louis. Published by the MacMillan Company, New York, 1933. 617 Pages.

This volume incorporates the result of a survey of the problem of arteriosclerosis, made by the Josiah Macy, Jr., Foundation, with the cooperation of leading American and European investigators. The introduction is written by Ludwig Aschoff, M.D., Freiburg University, Germany, and contains much valuable information on the subject.

Chapter one, by Dr. Esmond R. Long, University of Pennsylvania, covers the development of our knowledge of arteriosclerosis and contains some very interesting historical data as to the development of this subject. The structure and physiology of the blood vessels is very ably discussed by Dr. Cowdry, of St. Louis, in Chapter two. Dr. Crichton Bramwell, Manchester, England, discusses very ably the physical properties of the arteries in health and disease. The mineral constituents of the blood vessels as determined by the technic of microincinerations is discussed by Dr. A. Policard of Lyon, France. An interesting statistical study of arteriosclerosis, with a large number of tables, is written by Dr. Edgar Sydenstricker, of New York, which gives the reader an indication of the magnitude of the problem under study.

Chapter Six gives a very good comparison between arteriosclerosis in man and in the lower animals and birds, and is written by Dr. Herbert Fox of Philadelphia. The effect of race and climate as possible factors in arteriosclerosis is covered in a scholarly manner by Dr. Percy Stocks of London, England. Drs. Soma Weiss and George R. Minot, of Boston, have a chapter on diet and nutrition in relation to arteriosclerosis. Their observations are from both men and animals.

Pathogenesis of arteriosclerosis in human beings and animals is very well covered in separate chapters by Drs. W. Ophüls, of San Francisco, and N. Anitschkow, of Leningrad. They point out the effect from the feeding of cholesterol. The chemistry involved in the arteriosclerotic process is very ably discussed by Dr. H. Gideon Wells, of Chicago, while acute and chronic infections as etiological factors are emphasized by Dr. W. G. MacCallum of Baltimore.

A chapter on the condition of the retinal arteries is given by Dr. Jonas Friedenwald, of Baltimore, and contains a table which should be valuable to one studying the retina in regard to the different types of arteriosclerosis and hypertension. Drs. Stanley Cobb and Daniel Blain, of Boston, have written a complete discussion of arteriosclerosis of the brain and spinal cord. Coronary arteriosclerosis is well covered by Dr. Howard T. Karsner, of Cleveland, and shows some beautiful injected specimens of the coronary arterial tree. Dr. Karsner also writes Chapter Sixteen, which deals with the role played by the pulmonary arteries when sclerosed, and contains some valuable information for the student of the so-called Ayerza's disease or syndrome and related conditions. Dr. E. T. Bell, University of Minnesota, writes very ably on the pathological aspects of arteriosclerosis of the abdominal viscera and the extremities.

For the average clinician the chapter on hypertension in relation to arteriosclerosis, by Fritz

Lange of Munich, contains much valuable information of practical use. Heredity as a factor in arteriosclerosis is told very clearly by Dr. George Dee Williams, of St. Louis.

Treatment for which we all peruse volumes in order to aid in our daily practice is given by Dr. John Wyckoff, of New York, but reveals no new or startling methods. However, one should read these seven pages carefully as they contain a large amount of valuable information.

The whole subject of arteriosclerosis is summarized in Chapter Twenty one by Dr. Alfred E. Cohn, of New York, and if one does not have time to read the whole volume the last two chapters of this book should be given consideration.

W. B. YEGGE.

The Laboratory Notebook Method in Teaching Physical Diagnosis and Clinical History Recording. By Logan Clendening, M.D., Professor of Clinical Medicine in the University of Kansas. St. Louis: C. V. Mosby Co. 1934. Price 50 Cents.

As the author states in the preface, this manual is an attempt to use the old tried and true laboratory notebook method for the necessities of clinical medicine, more particularly physical diagnosis. The book is set up in convenient form with the outline for routine history and physical diagnosis on one page and the relevant explanatory notes on the page opposite. The student can write down in the notebook one careful and complete history and physical diagnosis. Following this are a number of written and oral exercises covering the various regions of the body. A perusal of this notebook may be recommended to those who are teaching history taking and physical diagnosis.

DUMONT CLARK.

I Know JUST the Thing for That. By J. F. Montain Sanitarium; American Association For the Advancement of Science; American Society for the Control of Cancer; Late of University and Bellevue Hospital Medical College; Fellow American Medical Association; Fellow New York Academy of Sciences; Fellow New York Pathological Society; Sometime Fellow New York Academy of Medicine and American College of Surgeons. New York: The John Day Company. Price \$2.00.

In the face of the present day exploitation of the human body and its various ailments, there can not be too many authoritative books conveying the truth to the layman. Such a book is this one. In a delightful fashion it gives a lucid picture of human physiology in relation to daily hygiene and to the functions and complaints that the average individual contemplates—and unwisely more often than not.

The physician should be prepared to recommend this volume to his patients, and he will be a better doctor for reviewing it himself.

ON TIME!

All meetings, papers, discussions, and demonstrations at the Annual Session in Colorado Springs this month will start and end ON TIME! Be there ON TIME.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

WATCH FOR THE FINAL PROGRAM

The scientific program and a condensed schedule of other events of the Sixty-fourth Annual Session at Colorado Springs, Sept. 19-22, 1934, published in last month's *Colorado Medicine*, will be supplemented as usual by a pamphlet program mailed to every member of the Society about ten days in advance of the meeting.

Watch for that pamphlet program. When it arrives, read every word of it. There will be additional features that cannot be described in detail this far ahead of the session. Then save the program, and bring it with you to Colorado Springs. Of course if you lose it, there will be extra copies, but the extra copies are usually in great demand. Above all, read that Program, and come to Colorado Springs. Indications are it will be the biggest meeting our Society ever conducted, and no member can afford to miss it.

Save those dates—Wednesday evening to Saturday evening, Sept. 19 to 22, this month.

SCIENTIFIC EXHIBITS

A complete list of the scientific exhibits for the 1934 meeting cannot be published at the time this issue goes to press. There are exhibitors from practically every part of the State, and they have not yet all submitted specific data upon their contributions. However, we are assured of exceptional moving pictures, collections, demonstrations, and commercial displays. The most complete list to date is that of the Section on Pathology, which follows. There undoubtedly will be several additions to it before the program is closed:

Aortic aneurisms.—R. H. Kampmeier, M.D., Tulane University.

Malignancy of the colon.—Geo. B. Kent, M.D., and Kenneth C. Sawyer, M.D., Denver.

Vaccination and toxoid administration.—Arthur W. Stahl, M.D., Denver.

Reproductions of pathologic specimens.—Nolie Mumey, M.D., Denver.

Pathology of the endocrine organs.—Denver Endocrinology Seminar, Denver.

Hayfever producing plants of Colorado.—Ed. R. Mugrage, M.D., and Paul Garvin, M.D., Department of Clinical Pathology, University of Colorado School of Medicine.

Renal pathology.—W. C. Johnson, M.D., Professor of Pathology, and E. K. Rutledge, M.D., De-

partment Pathology, University of Colorado School of Medicine.

The study of living blood cells by supravital staining.—C. W. Maynard, M.D., Pueblo Clinic.

Certain phases of clinical pathology.—George Zur Williams, M.D., Denver.

Instruction in ophthalmoscopy.—Ralph W. Danielson, M.D., Denver.

Anatomical studies of lymphatics.—Ivan E. Wallin, Ph.D., Professor of Anatomy, and Alice Parker, M.A., Department of Anatomy, University of Colorado School of Medicine and Child Research Council.

Correlations of female sex hormone and endometrial changes during the menstrual cycle.—Lyman W. Mason, M.D., Denver; R. G. Gustavson, Ph.D., Professor of Chemistry, University of Denver, and W. C. Black, M.D., Department of Pathology, University of Colorado School of Medicine.

A comparison of rapid biopsy methods.—O. S. Kretschmer, M.D., Denver.

AWARDS TO EXHIBITORS

Reports from members of the various exhibit committees indicate that competition for Exhibit Awards will be unusually keen this year. As in the past, a First Award certificate will be given in each scientific exhibit classification, under the direction of the Committee on Scientific Work, which will appoint a secret judging committee of non-exhibitors at the time of the meeting. In addition, this year, a First Award certificate will be given to the commercial exhibit judged to be the most valuable to the Annual Session. Certificates of Honorable Mention will be awarded in addition to the "firsts" in each classification in whatever number the judging committees deem justified.

OUR BANQUET SPEAKER

It is with especial pleasure that the Committee on Arrangements announces the name of the speaker for the Annual Banquet of the Society, which will be held at the Antlers Hotel Saturday evening, September 22.

James Grafton Rogers, Dean of the School of Law, University of Colorado, and former Assistant Secretary of State of the United States, will be the speaker. His subject, "The Anatomy and Physiology of Washington, D. C.," is chosen as just a hint of the interesting reminiscences we

will hear from one who has served in the very thick of the national capital's business.

Dr. Walter L. Bierring, President of the American Medical Association, who will appear on our Scientific program and who will bring us official greetings from the mother organization, has especially congratulated us upon obtaining Dean Rogers as our banquet speaker. With the federal government delving more and more into the practice of medicine, we are mightily interested in knowing what goes on behind the scenes in Washington. We will undoubtedly hear just that, in "Jim" Rogers' delightful humor.

CORRECTION!

In the program notes published in the August, 1934, issue of Colorado Medicine, several references were made to the Stag Smoker, and all noted that this would be held at the Patty Jewett Country Club. The Committee in charge informs us that this was erroneous, that the Stag Smoker will be held at the Broadmoor Golf Club. The time and all other announcements concerning the Smoker still stand as published. As a stag event, it will be the event of events!. Be there! And remember it will be at the Broadmoor Golf Club, 8:30 p. m. Thursday, September 20.

MORE ABOUT THE CLINICS

Members will have noticed in the program published last month that in connection with the Annual Session, committees this year will arrange an afternoon of medical clinics, and afternoon and evening of dermatological clinics, and two early-morning sessions of surgical clinics.

The medical and surgical clinics will be conducted in the various Colorado Springs Hospitals. Bulletin boards in the lobby of the Antlers Hotel and at the registration desk will announce the subjects of these clinics the day preceding, in each case. The bulletins also will announce transportation arrangements for taking those doctors to and from the clinics who do not have their own cars, and will explain clearly how to reach each clinic, for the benefit of those who do have their cars but are not familiar with Colorado Springs.

Those needing transportation to and from the clinics will be asked to register, at the Medical Society registration desk, by 5 p. m. of the day preceding each surgical clinic, and by noon of Friday for the medical clinics. Members will please bear this in mind and act according to avoid confusion.

ON TIME!

Meetings at the Sixty-fourth Annual Session will start on time, their schedules of papers will continue on time, they will adjourn on time. Every speaker has been informed of the exact time he is allowed, and none will be permitted to go beyond that limit.

The Committee on Scientific Work has the power of the Society's By-Laws back of it in this determination, and is therefore warning all members that if they wish to hear a certain paper, they had best be in the assembly room at the exact hour that paper is scheduled, or the paper will be missed!

The officers are equally determined that the same business-like schedule of on-time meetings will be followed in the House of Delegates.

Sequelae of the C.W.A. Administration

WE were proud of the work done by medical organization in general and by our Medical Economics Committee in particular in connection with the C.W.A. Administration last winter and spring. After a stiff fight led by the A.M.A. and our Society, C.W.A. workers were granted free choice of physicians, and C.W.A. rules were issued to allow the physician chosen by a C.W.A. employee his "reasonable charges for fees not in excess of those charged patients in the same income class as the injured person."

The C.W.A. Administration in Colorado cooperated with our Society in every possible manner. From the state viewpoint we have had no complaint to make, nothing but praise of the state C.W.A. officials to offer. They warned us of the inevitable governmental red tape and delay that would ensue in Washington in the actual payment of the fees authorized, and we in turn urged patience upon our county society officers, warned that the bills run up for C.W.A. patients probably would not be paid for some time; anything from six weeks to three months was the estimate.

But delays have become unconscionable. Bills submitted in January, audited by the state C.W.A. Administration, O.K.'ed by them, and forwarded to Washington for payment within two weeks, are just now being paid. Apparently only a small portion of the bills were paid in less than six months. Many of them have been delayed eight months.

And that is not all. It is not even the worst part of it. Most of the bills being paid are being discounted anything from 15 per cent to more than 50 per cent, accompanied by a mimeographed statement reading as follows:

U. S. Employees' Compensation Commission

The Commission is allowing your voucher rendered in this case at a lower rate than that charged by you. It is realized the fees

allowed in this case may be lower than the usual fees charged to the average private patient. However, it must be borne in mind that the setting up of the Civil Works Administration Program with the allowance of compensation benefits will to some extent relieve the medical profession of the burden of free treatment. In view of the Federal employment of these people as a relief measure, it is not believed the average fees generally charged in each locality are warranted. You will probably find the fees allowed in this case are not less than the fees you charge a private patient in the same income class as the injured employee or the minimum fee schedule of your county Medical Society. They can be compared favorably with fees allowed for medical treatment of the unemployed under authority of the Federal Emergency Relief Administration.

While we must admit that here and there a doctor may carelessly have submitted a bill that was a little out of line, was perhaps slightly "in excess of those charged patients in the same income class," we know that no such blanket charge may be laid against the medical profession of Colorado.

It looks to us as though the U. S. Employees' Compensation Commission has betrayed the medical profession. The medical profession gave its best to the C.W.A., medical organization, figuratively worked its head off preparing lists of eligible physicians, doing innumerable thankless clerical jobs—all on the promises of the U. S. Employees' Compensation Commission and the C.W.A. national administration that physicians would be dealt with fairly.

Colorado physicians are rightly resentful of this treatment. A few have voiced written protests to Washington. The State Society is protesting. If more Colorado physicians protest perhaps favorable results will ensue. If physicians in other states are being treated as unjustly, we hope they, too, let themselves be heard.

A well-worded protest recently went forward from one of our Pueblo members, who has given us permission to reprint his letter. We think the letter is fine. Here it is:

JOHN BARON FARLEY, M.D.
Suite 544-550 Thatcher Building
Pueblo, Colorado

August 9, 1934.

U. S. Employees' Compensation Commission,
Office of the Chief of Accounts,
Washington, D. C.

Dear Sirs:

Re: C. B. McCartney,
Pueblo County, Colorado,
Civil Works Administration,
January 30, 1934,
Back Sprain.

Today I received from your office a check for four (\$4.00) dollars in acknowledgment of a bill for six (\$6.00) dollars, an amount which I considered to be reasonable and a charge which I

would have made against this man had he been a private patient sent to me by an insurance company. This charge was made for the skill expended in diagnosing a back sprain which at times is one of the most difficult determinations in the diagnostic field. Figured on a basis of overhead, together with the investment in my education and equipment, it costs me approximately eight dollars an hour to operate. The diagnosis, the care of the back sprain, and the filling in of the reports required to inform your office of this injury, absorbed two hours at the least . . . a minimum expenditure on my part of sixteen dollars.

I do as much work as any physician in this city for insurance companies. Reports for no private insurance company operating in the United States today demand the detail and require the time as the reports required of the doctors under the Civil Works Administration. I feel that the making out of the reports alone in the above captioned case was worth more than four dollars.

This work was performed in January. Payment for the work was received in August, and then I was informed that the charge had been reduced from six dollars to four dollars "to what your office regarded as a reasonable charge for this work." Laborers employed under the Civil Works Administration rightfully received their checks at the end of each week, and no laborious and detailed reports were demanded from them as to the scope of their work. Either the department which supervised the employment and payment of laboring men was exceedingly efficient and the department which meted the professional man his due was extremely inefficient, or this is just another incident of imposing upon the doctor. You had many more laborers employed than you had doctors; if your disbursement division was able to imburse these millions of laborers promptly it should certainly be able to imburse thousands of doctors within a like period of time.

Cutting and slashing of bills is probably done by some non-medically trained clerk who has been put on the job with the sole duty of trimming the medical bills for the Civil Works Administration. In Pueblo county you paid more than the labor unions of this city asked that you pay skilled and non-skilled labor. Many of the skilled laborers, according to the labor union scales of this city, would have been paid seventy-five cents an hour as an adequate wage. You chose to pay them, however, one dollar and ten cents an hour. In my opinion they earned and were entitled to the higher pay, but I wish to call attention to the fact, at the same time, that the doctors' pay for skilled services must be cut even after he has reduced his charges to compensation rates. The government pays retail prices in supplying the families on relief rolls with groceries, it pays the shoe man and the electric light companies retail prices, and yet even after demanding that the medical profession work on a wholesale basis of cut fees the government employs clerks to cut the professional fees deeper.

I am returning this check for four dollars and protesting this bill. It probably will mean nothing to your department, and with true bureaucratic indifference none of your myriads of clerks will find time to answer this letter. However, it remains that I am completely dissatisfied with your cutting of bills sent in by the medical profession after taking the stand of paying the laboring men more than they ask and paying the full retail prices for all living commodities.

When you can send me a check for six dollars instead of for four dollars, I shall be glad to accept it.

Yours very truly,

JOHN B. FARLEY, M.D.

JB/F/T

cc. Hon F. D. Roosevelt, President,
Harvey Sethman, Secretary,
Colorado State Medical Society.

WOMAN'S AUXILIARY

BENEVOLENT FUND

The Woman's Auxiliary to the Colorado State Medical Society created a Physicians' Benevolent Fund at the meeting last September, with \$100.00 from the Auxiliary Treasury. Since then the Weld County and Larimer County Auxiliaries have each sent in \$15.00, and the Denver County Auxiliary \$102.00. This money is drawing interest now.

The purpose of this communication is to inform every doctor and his wife concerning the Benevolent Fund, and to interest them in contributing to this worthy cause if possible.

A recommendation from our Board is to the effect that a part of every dollar received as Auxiliary dues shall be set aside for this Fund. Wives of members of the State Medical Society are eligible to membership in the Auxiliary by the payment of \$2.00 annual dues. In localities where there is no county Auxiliary organization, wives may become "members-at-large" upon payment of \$1.00 per year.

County Societies are becoming interested in this work and are making plans to aid in building up the Fund. Every doctor's wife can help by joining the Auxiliary. Every doctor can help by getting his County Society to set aside part of its money for the Fund, and by remembering the Physicians' Benevolent Fund in his will or by insurance. The plan has been very successful in Pennsylvania, New Jersey, and other states.

Unfortunately, our Fund is not yet of usable size. There are some cases now where doctors in our State, who have given their time and skill to humanity, are on charity themselves. It is embarrassing to a doctor or a doctor's family to ask for charity, but with a Fund of our own, to which they might have contributed, less embarrassment would be felt in receiving aid.

This communication is approved by Dr. Gerald B. Webb, President of the State Medical Society. The Board of Trustees of the State Medical Society has also approved the plan and has authorized the Auxiliary to establish the Fund.

We should like to have an expression from you before the time of the State Meeting at Colorado Springs. We urge every doctor and his wife to attend this meeting, September 20, 21, and 22, not alone to learn more of the Benevolent Fund plans, but because it promises to be the outstanding meeting of many years, both in program material and entertainment.

MRS. T. MITCHELL BURNS,
Chairman,

MRS. LORENZ W. FRANK,
Member,

MRS. G. P. LINGENFELTER,
Ex-officio.

ANNUAL STATE MEETING

Doctors' wives will notice from the following program that the schedule is different from that of previous years. For instance, on Thursday and Friday evenings the Entertainment Committee will hope to have the opportunity of looking after all visiting wives while the doctors are in session.

The banquet will be held on Saturday night instead of Friday.

Plan a little vacation trip of three or four days and stay from Thursday until Sunday.

ANNUAL MEETING OF WOMAN'S AUXILIARY TO THE COLORADO STATE MEDICAL SOCIETY

Host: El Paso County Auxiliary

Colorado Springs, September 20, 21, 22, 1934
Mrs. George P. Lingenfelter, President, Denver

Social Committee—Mrs. J. B. Crouch, Chairman,
20 East Washington, Colorado Springs; Mrs.
H. C. Goodson, Chairman of Golf Committee;
Mrs. C. S. Gydesen, Chairman of Transportation.
Committee on Entertainment—Mrs. E. L. Timmons,
Mrs. H. C. Goodson, Mrs. G. H. Stine, Mrs.
C. S. Morrison, Mrs. E. B. Liddle, Mrs. W. K.
Hills, Mrs. L. H. Hill, Mrs. F. O. Kettlekamp,
Mrs. W. A. Campbell, Mrs. F. T. Stevens, Mrs.
J. B. Hartwell, Mrs. C. O. Giese, Mrs. L. W.
Bortree, Mrs. T. R. Knowles, Mrs. C. S. Gydesen,
Mrs. H. H. Schultz, Mrs. C. E. Harris.

CONDENSED PROGRAM

Thursday, September 20

9:00 a. m.—Opening registration, Antlers Hotel.
3:00 p. m.—State Executive Board, Antlers Hotel
Parlor.
8:00 p. m.—Card Party (probably at Antlers Hotel). All doctors' wives invited.

Friday, September 21

10:00 a. m.—Annual Meeting of State Auxiliary,
Election of Officers.
1:00 p. m.—Annual Luncheon and Program at
The Silver Shield; price 75 cents.
All doctors' wives invited. Mrs. E.
B. Liddle, Chairman. Theater parties
in evening.

Saturday, September 22

9:30 a. m.—Meeting of Executive Board, Antlers
Hotel Parlor.
6:00 p. m.—President's Reception and Banquet,
Antlers Hotel.

On June 12, Mrs. Arnold Minnig, president of the Woman's Auxiliary to the Denver County Medical Society, entertained the officers of that organization at luncheon. Following the luncheon was held a meeting of the Executive Board. Those present were Mrs. Robert F. Maul, Mrs. Virgil E. Sells, Mrs. Merrill C. Jobe, Mrs. C. A. McLaughlin, Mrs. George H. Gillen, Mrs. George W. Miel, and Mrs. John A. McCaw, past president.

COLORADO STATE MEDICAL SOCIETY

Officers, 1933-1934

President: Gerald B. Webb, Colorado Springs.

President-elect: N. A. Madler, Greeley.

Vice Presidents: First, Frank E. Rogers, Denver; Second, A. G. Taylor, Grand Junction; Third, C. E. Sidwell, Longmont; Fourth, Ward C. Fenton, Rocky Ford.

Constitutional Secretary: John S. Bouslog, Denver.

Treasurer: Leo W. Bortree, Colorado Springs.

(The above officers constitute the Board of Trustees of the Society.)

Executive Secretary: Mr. H. T. Sethman, 537 Republic Building, Denver. Telephone, KEystone 0870.

Delegates to American Medical Association: Senior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver; Junior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs.

Councillors:	Term Expires
District No. 1 F. W. Lockwood, Fort Morgan	1936
District No. 2 Ella A. Mead, Greeley	1936
District No. 3 George P. Lingenfelter, Denver	1936
District No. 4 C. T. Knuckey, Lamar	1935
District No. 5 George D. Andrews, Walsenburg	1935
District No. 6 C. Rex Fuller, Salida	1935
District No. 7 A. L. Burnett, Durango	1934
District No. 8 Lee Best, Delta	1934
District No. 9 W. W. Crook, Glenwood Springs, Chairman	1934

Standing Committees, 1933-1934

Credentials: John S. Bouslog, Denver, Chairman; Harold T. Low, Pueblo; John A. Sevier, Colorado Springs.

Scientific Work: Kenneth D. A. Allen, Denver, Chairman; Burgett Woodcock, Greeley; G. Burton Gilbert, Colorado Springs.

Arrangements: John B. Hartwell, Colorado Springs, Chairman; William A. Campbell, Jr., Colorado Springs; Carl S. Gydesen, Colorado Springs.

Public Policy: Charles O. Giese, Colorado Springs, Chairman; Walter W. King, Denver, Vice Chairman; H. R. McKeen, Denver; Gerrit Heusinkveld, Denver; Harvey W. Snyder, Denver; James J. Waring, Denver; Lanning E. Likes, Lamar; W. W. Harmer, Greeley; Charles H. Platz, Fort Collins; Gerald B. Webb, Colorado Springs, ex-officio; John S. Bouslog, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: C. S. Bluemel, Denver (1934), Chairman; William H. Crisp, Denver (1935); C. F. Kemper, Denver (1936).

Medical Defense: T. D. Cunningham, Denver (1934), Chairman; Casper F. Hegner, Denver (1935); Frank B. Stephenson, Denver (1936).

Medical Education and Hospitals: J. A. Sevier, Colorado Springs, Chairman; Royal H. Finney, Pueblo; Thad P. Sears, Denver.

Library and Medical Literature: George A. Boyd, Colorado Springs, Chairman; E. D. Downing, Denver; F. W. Kenney, Denver.

Cooperation with Allied Professions: M. O. Shivers, Colorado Springs, Chairman; H. S. Finney, Denver; John R. Evans, Denver.

Medical Economics: Philip Hillkowitz, Denver, Chairman; Claude E. Cooper, Denver; F. Julian Maier, Denver.

Necrology: George M. Blickensderfer, Denver, Chairman; John F. McConnell, Colorado Springs; C. W. Streamer, Pueblo.

Special Committees, 1933-1934

Postgraduate Clinics: C. E. Harris, Woodmen, Chairman; Maurice H. Rees, Denver; Nolie Mumey, Denver; O. M. Gilbert, Boulder; Fred M. Heller, Pueblo.

Military Affairs: George P. Lingenfelter, Denver, Chairman; John W. Amesse, Denver; Robert M. Fulwider, Fort Lyon; Louis V. Sams, Denver; W. P. McCrossin, Colorado Springs.

Advisory to the School of Medicine: Frank B. Stephenson, Denver, Chairman; John S. Bouslog, Denver; T. D. Cunningham, Denver; C. E. Sidwell, Longmont; Charles O. Giese, Colorado Springs.

Cancer Education: Lyman W. Mason, Denver (1936), Chairman; Charles T. Ryder, Colorado Springs (1936); John B. Hartwell, Colorado Springs (1936); C. W. Maynard, Pueblo (1935); W. W. Wasson, Denver (1935); H. S. Finney, Denver (1935); William H. Halley, Denver (1934); K. D. A. Allen, Denver (1934); W. W. Haggart, Denver (1934).

Nursing Education: Frank E. Rogers, Denver, Chairman; H. A. Black, Pueblo; C. T. Knuckey, Lamar.

Public Health: E. N. Chapman, Colorado Springs, Chairman; John W. Amesse, Denver; Margaret Long, Denver.

Workmen's Compensation Affairs: Peter O. Hanford, Colorado Springs, Chairman; A. S. Cecchini, Denver; J. B. Farley, Pueblo.

Constituent Societies

Meeting Dates; Secretaries

Adams County—Quarterly, date set by president and secretary; secretary, J. C. Stucki, Brighton.

Arapahoe County—Last Monday of each month; secretary, N. Paul Isbell, Englewood.

Boulder County—Second Thursday of each month; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, C. Rex Fuller, Salida.

Clear Creek Valley—Second Tuesday of each quarter; secretary, O. R. Sunderland, Edgewater.

Crowley County—Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, O. S. Philpott, Denver.

El Paso County—Second Wednesday of each month; secretary, Carl S. Gydesen, Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs.

Huerfano County—Third Thursday of each month; secretary, J. R. Fowler, Tioga.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, W. L. McBride, Seibert.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, L. D. Dickey, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—Third Tuesday of each month; secretary, F. J. McDonough, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each quarter; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Friday of each month; secretary, C. E. Morse, La Junta.

Prowers County—First Tuesday of each quarter; secretary, Scott A. Gale, Lamar.

Pueblo County—First and Third Tuesday of each month; secretary, J. L. Rosenbloom, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, O. B. Rensch, Durango.

San Luis Valley—Fifteenth of each month; secretary, James R. Hurley, Alamosa.

Washington and Yuma Counties—First Tuesday of each quarter; secretary, L. D. Buchanan, Wray.

Weld County—First Monday of each month; secretary, J. A. Weaver, Jr., Greeley.

WYOMING SECTION

President, H. L. Harvey, Casper

Vice President, Chester E. Harris, Basin

President-elect, J. L. Wicks, Evanston

Secretary, Earl Whedon, Sheridan

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A., G. P. Johnston, Cheyenne; Alternates, F. L. Beck, Cheyenne; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne; J. H. Goodnough, Rock Springs; F. C. Shafer, Douglas

Medical Defense Committee: R. H. Sanders, Rock Springs, Chairman

F. L. Beck, Cheyenne;

Earl Whedon, Sheridan

EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

*Herbert L. Harvey, M. D., President,
Wyoming State Medical Society*

AT Fairbury, Nebraska, March 27, 1890, a boy was born who today is the honored President of the Wyoming State Medical Society. He attended the grade and high schools at Gandy, Nebraska. The University of Nebraska had him as a student and in 1916 he married Miss Lena G. Larsen of Chicago. Four years later he was graduated from the St. Louis College of Physicians and Surgeons. His internship was at Inglewood Hospital in Chicago.

Then he came West and for three and one-half years practiced at Glenrock, Wyoming. These were in the boom days of the oil industry in Wyoming and the classes of cases he had to meet called for the best of medical and surgical skill because of the hazardous occupations of his patients. Dr. Harvey then moved to Casper where he has been one of the leaders of the profession in that busy oil center.

He has been repeatedly honored by the members of the medical profession with such offices as Chief of Staff of the Natrona County Memorial Hospital, President of the Natrona County Medical Society for three terms, and Secretary for three years. In the State Society for several years he has been a member of the House of Delegates and of the Council. In 1931 he was elected Vice President and in 1932 President-Elect. This year he is our President.

E. W.

*Twenty-Five Per Cent Gained—
Twenty-Five Per Cent to Go*

THE F.E.R.A. has seen and acknowledged the justice of the claims of the Wyoming doctors that they should be paid more than 50 cents on the dollar for their services. Beginning August 15 the rates have been raised 25 per cent.

This action endorses our position that there was no fairness in our charges being 50 per cent less to our government than we charge our pay patients. This advance will be welcome news to the doctors of Wyoming, but it only goes to prove that we should receive in all fairness a further advance of 25 per cent more so that Uncle Sam pays the same rate as the poor man who; by hard work, in these difficult times makes a living and pays his doctor on the same basis as he pays his grocer and his other living expenses.

We again request that our fee schedules be further raised 25 per cent so that we can not be accused of being scabs working at rates lower than our Union (State Medical Society) rates. None of us like the word "Scab," so let the rates be further raised at once.

If you have not received your copy of the new fee schedule write to Mr. Beasley at Cheyenne and ask him to send you one.

E. W.



Herbert W. L. Throay

Rocky Mountain Spotted Fever in Wyoming This Year

ONE of the mildest winters for several years occurred in the 1933-34 winter. Very much earlier than usual the wood ticks began to appear and in greater numbers than usual. Ranchmen reported them in the latter part of January and by February they were plentiful.

The State Board of Health reports that for the year 1934, up to August 1, there have been reported ninety-one cases, with twenty-one deaths, or 23 per cent of the patients died.

The interesting point brought out by the report by Counties is that the northern two-thirds of Wyoming produced all the cases—the southern one-third being entirely free.

The report by Counties is as follows:

COUNTY	CASES	DEATHS
Big Horn	13	3
Campbell	10	1
Converse	6	0
Crook	4	1
Fremont	8	3
Johnson	8	0
Lincoln	1	1
Natrona	9	3
Niobrara	1	1
Park	8	1
Platte	2	1
Sheridan	9	2
Washakie	12	4

In Converse and Johnson with six and eight cases there were no deaths. Deducting these Counties from the total raises the percentage to 27 per cent in the rest of the infected area.

That the number of cases would have been several times what we did have had we not used the Spencer-Parker Vaccine can not be doubted. The United States Public Health Service at Hamilton, Montana, produces the Spencer-Parker Vaccine which is distributed free through the State Health Departments. Improvements are being made which will enlarge the output of the vaccine, and yet we feel the Government does not realize how much larger this laboratory should be made to meet the needs of this wonderful vaccine all over the United States.

Not one-half of the people who wanted to be protected could be accommodated this year, and it is hard to refuse the vaccine

to one person and yet favor someone else. We ought to make enough for every man, woman, or child who wishes this Spencer-Parker vaccine. Let's all work to that end.
E. W.



Our Casper Meeting

LOOKING backward is sometimes not a pleasure—but generally it brings fond remembrances. The memories which come before our eyes are delightful as our last State Medical Society meeting is reviewed. The renewal of acquaintances, the grasp of hands of fellow members, and the fine spirit shown by our members and visitors make a man glad he is a Wyoming doctor and that he could meet with so many others of his chosen profession.

Sunday afternoon, July 15, the doctors and their wives began to register at the three good hotels at Casper. The Natrona County Medical Society had live special committees as greeters at the hotels, who not only welcomed us but looked after all our wants. At 7:30 a smoker for the men was held in a large upper room at the Gladstone where the Wyoming doctors and the visiting doctors were registered and introduced. Gathering groups of smoke signs raised, and from the distance one might have thought of sixty years ago when Red Cloud and his braves were gathered along the banks of the Platte River making medicine before the Council with the Union army officers, at which time the treaties were made giving the Indians this very land—later to be taken away, together with its millions of barrels of black gold, which have made so many people wealthy right at Casper and indeed all over the country.

The entertainment committee provided entertainment even beyond the walls of the hotel and so our men knew each other and the visitors a little better on account of that smoker. Our wives were being entertained by the Natrona County physicians' wives that evening. They, too, enjoy visiting with each other and we feel they help make our annual conventions much better by their interest and attendance.

At eight o'clock Monday morning a large group of physicians spent two very interesting hours at the Natrona County Hospital where Dr. J. C. Kamp of the Casper Society conducted, in an able manner, an interesting heart clinic. Dr. Adolph Sachs of Omaha made several comments and complimented Dr. Kamp on his fine clinic.

In the beautiful Elks Club the members gathered at 10 o'clock and Dr. F. L. Beck, our President, delivered his annual Presidential address which was published in full in the August number of Colorado Medicine. Dr. Adolph Sachs of Omaha followed with an able and very interesting paper on Modern Cardiac Therapy. This closed the morning session.

Dr. Nolie Mumey of Denver prepared a very scientific exhibit of wax models of pathological subjects. These were displayed in a most artistic manner and were examined minutely and admired by the members of the profession. Their value was enhanced by the ability of Mrs. Nolie Mumey and the assistant in explaining them. The specimens were in charge of these two ladies.

This has been a great bug year in Wyoming. Not only have we had billions of grasshoppers and Mormon crickets, but also golf bugs and they got in their work at our meeting. Several of our most esteemed members were bitten, causing them to rise up early in the morning, to leave their restful beds and to go out and chase a little white ball over the hills. They seemed to enjoy this punishment and after two mornings reported by Dr. George H. Phelps of Cheyenne had again captured the high score and that if he is successful next time the prize loving cup donated by the State Society will be his forever. The men who participated in this tournament were very appreciative of the courtesy extended by the local promoters of the sport.

Monday at 1:30 Dr. J. C. Kamp of Casper presented the paper entitled "Chronic Arthritis, Its Differential Diagnosis and Treatment." This paper aroused a general discussion and was greatly appreciated by the membership. Then came our old friend and Ex-President, Dr. C. W. Jeffrey of Rawlins with not a "Bag of Tricks," but with a suit-

case full of all kinds of queer looking so-called instruments. Dr. Jeffrey made use of such things as a large tablespoon which he used as a tongue depressor, a sterilizer for needles, and many other useful purposes. His uses of adhesive plaster, old pans in place of the often absent douche pan and a dozen or more common things which can be found in any ranch home far from the Surgical Instrument Wholesale House created a great deal of interest. We all felt sorry when the genial doctor returned to his seat and wished he had even shown us more of his clever practices.

Two interesting papers on the general subject of Medical Economics were presented by Dr. Joe S. Buntin of Cheyenne and Dr. Paul S. Reed of Worland. Mr. Harvey T. Sethman of Denver, Executive Secretary of the Colorado State Medical Society, discussed the two papers just read and the Wyoming doctors are most grateful to the Colorado State Medical Society for the presence of Mr. Sethman and for his fine discussion. A general discussion followed and we acquired a much better understanding of the economic questions as they affect the lives and pocketbooks of the Wyoming citizens and their doctors. The finest meeting of the House of Delegates followed and in the October number of this journal will be found the minutes of the different meetings of the House of Delegates and the reports of the officers.

Evening came and then the fun began again—we were all guests of the Natrona County Society—they took us out to the Goose Egg Inn up the Platte River. About one hundred and twenty-five doctors and their wives were banqueted and enjoyed the cool breeze from the mountains. Only the accident to the autos of Drs. Beck and Reed marred the evening. Mrs. Beck and Mrs. Reed were not seriously injured and have recovered from their rather painful experience. We all feel so thankful that they escaped as well as they did.

Tuesday's scientific program began with a paper written by Dr. W. H. Hassed, our State Health Officer, who outlined the program the State Board of Health was carrying out in our State. Several useful sugges-

tions were made by County Health officers which will be put into practice by the State Health Department. Dr. Jay J. Keegan of Omaha gave an instructive paper on "Emergency Brain Surgery." Dr. Keegan held his audience spellbound by his clear pictures and fine discussion.

Dr. Hugo L. Lucic of Cheyenne was unable to be present and President Beck read his paper on "Some Common Causes of Blindness." The writer brought to the general practitioner the common causes of blindness and outlined the proper ideals of diagnosis and treatment. This was one of the most practical papers and was listened to with marked attention.

Dr. Douglas W. Macomber of Denver, who is the Editor of Colorado Medicine, gave one of the treats of our meeting entitled "Early Diagnosis of Ectopic Pregnancy." This paper was full of very useful hints on this one of the most unfortunate accidents of approaching motherhood. Unlike many writers on this subject, Dr. Macomber avoided the high technical phrases of the subject and most clearly discussed the points of differential diagnosis from other abdominal complications. A free discussion followed this paper. The last morning session was over.

The afternoon was given over to the woodtick and the diseases it transmits to mankind. We make the assertion that at no State Meeting has there ever been heard a finer program on the woodtick. Dr. Gordon E. Davis of the U. S. Public Health Service of Hamilton, Montana, presented a most interesting paper on Colorado Tick Fever. He is in charge of a special laboratory located at Casper where a special study of this disease is being carried on this summer. His paper also covered more than just Colorado Tick Fever. We honestly believe this expert could have held the audience for another hour or more if we could have given him the time.

Dr. F. C. Shaffer of Casper gave a paper on personal experiences with Colorado Tick Fever. Dr. Shaffer gave the histories of several cases and undoubtedly did a fine piece of work in calling to the attention of many Wyoming men and our visitors the

symptoms of this disease which has not been recognized in the past.

Then there appeared Mrs. E. L. Jewell of Shoshone, who, by special request, read one of the finest papers of the Casper meeting, entitled "Rocky Mountain Spotted Fever with Special Attention to Treatment," written by the friend of every Wyoming doctor for the past twenty-five years, Dr. E. L. Jewell. This paper will be published in an early issue of Colorado Medicine. Dr. Jewell as Past President and one of the early physicians in the Wind River country has had a wonderful experience with Rocky Mountain Spotted Fever. His paper was so complete and written in such an interesting way that you must not overlook this treat when it is published.

Dr. Homer Lathrop of Casper collaborated with Dr. Jewell then passed around the finest collection of photographs ever seen of Rocky Mountain Spotted Fever cases. We hope to publish some of these beautiful pictures. Dr. Lathrop added several useful suggestions in a good brief paper. Drs. Jewell, Lathrop, and Dean were the real pioneers in the study of Rocky Mountain Spotted Fever in central Wyoming.

Dr. Earl Whedon presented a paper entitled "The Spencer-Parker Vaccine and Its Use in Sheridan County, Wyoming." For one hour there followed the finest discussion of the papers presented and our only regret is that our Society is so small that we can not afford the services of an expert stenographic reporter to take down such fine discussions. The medical world would be richer if we could present the many points brought out in that hour. Never was there a better discussion in the history of our State Society. Nearly every doctor present had some interesting fact to relate or some question to be answered—and so closed our thirty-first meeting.

That the Natrona physicians and their wives gave us one of the best meetings is the sweetest memory we have. No state has a finer group of doctors' wives and we could not help but feel proud of them and thankful that they attend our annual meetings and encourage their husbands to attend.

E. W.

STATE STREET INVESTMENT CORPORATION LEADS



In the August 13, 1934, issue of "Barron's," an article, "Management Again at Par," traces the record during the past few years of the "investment-companies" of this country. This study shows that a few fine records have been made with several powerful units emerging from the depression.

One important point brought out by this study is that as a group all of the companies considered showed records which in the main were between the averages of the stock market and the bond market. Another result shown is that the "Mutual Funds," that is those with the market price adjusted daily to the liquidating value, made the best record.

Altogether 46 companies were considered and to quote from the article, "During the eight years from 1926 through 1933, one mutual fund accomplished an exceptional record. This is State Street Investment Company..."

In order to show you how very exceptional the State Street record is, the following is a list of the results of the eight other mutual funds studied compared with and the stock and bond averages.

Mutual Funds	1933 Results	2 yr. '32-33	3 yr. '31-33	4 yr. '30-33	5 yr. '29-33	6 yr. '28-33	7 yr. '27-33	8 yr. '26-33
Trust "A"	+23	+21	-11	-24	---	---	---	---
Trust "B"	+ 7	---	---	---	---	---	---	---
Trust "C"	+25	---	---	---	---	---	---	---
Trust "D"	+51	+26	-30	-50	-54	-31	-11	---
Trust "E"	+32	+23	-30	-48	-51	-37	-16	---
Trust "F"	+27	---	---	---	---	---	---	---
Trust "G"	+68	+54	-19	-43	---	---	---	---
Trust "H"	+ 3	---	---	---	---	---	---	---
State Street	+58	+62	+17	-11	-17	+56	+140	+173
Dow-Jones 50 Indust.....	+67	+28	-39	-60	-67	-51	-36	-36
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Colorado Hospital Association

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Coming Elections

THE primary and state elections are now upon us. At these elections National Congressmen and State Senators and Representatives will be selected. During their terms of office there will be presented in both the National Congress and the State Assembly proposed laws for the benefit of hospitals. Now is the time for you to obtain promises from these candidates to support our proposed program. The hospital workers should support and vote for only those who will pledge themselves to support the hospitals' interests.

Obtain their promises now! After election will be too late!



"Hospital Service" Plans:

IN the last two months there have been organized in Colorado two groups selling hospital service. One offers an impossible scheme in which the subscriber will receive very little protection, and no service in the approved hospitals of Denver. The other is an honest attempt to provide the insured with hospital service, but is owned and controlled by a company organized for profit. While the organizers of this latter company are reliable and are attempting to give the public just what is contracted for, nevertheless it is regrettable that hospital insurance should be inaugurated in Denver by a profit seeking company, rather than by the Denver hospitals themselves. The hospital group will have no control over such a plan, whereas a group hospitalization plan introduced and sponsored by the approved Denver hospitals might have resulted successfully.

Anne Goodrich Speaks At C. H. A. Meeting

THE Colorado Hospital Association held its quarterly meeting Friday, July 2, at the Cosmopolitan Hotel. The meeting was called at this particular time in order that the Association might have as its principal speaker Dr. Anne Goodrich, Dean of the Yale School of Nursing, who is now giving a course of lectures at the Colorado State Teachers College, at Greeley. The Colorado State Nurses' Association and the Colorado State League of Nurses were invited to be present, and attended in good numbers.

Dr. Goodrich gave an inspiring talk, after which she answered questions. These answers were most interesting, some of which were as follows: She stated that good nursing service in the average hospital requires that a nurse give about four hours per day in attending to the average patient. Convalescing patients require less, and the seriously ill ones more. She advocated the use of maids for routine work such as making beds, dusting, caring for flowers, et cetera; but under no circumstances would she tolerate the use of the practical nurse.

Dr. Goodrich called attention to the fact that nursing technic as practiced today is more difficult than it was ten to fifteen years ago; the nurses are required to give more time to their patients; and the treatments are more difficult to carry out.

Mr. Walter G. Christie, Superintendent of Presbyterian Hospital, Denver, gave a review of the practices of the Colorado Hospitals in granting sick leave and vacations to their employees. This paper is published in its entirety in this issue.

No business session was held by the Association.

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A Matter of Reciprocity

AT the meeting of the American Medical Association in Cleveland a resolution was passed recommending that the Council on Medical Education and Hospitals not approve any hospital for the training of interns which admits to its staff physicians who are not members in good standing of their County, State, and National Medical Societies.

Most of the conscientious and progressive hospitals have already adopted the policy of requiring that physicians be members of their local medical societies and the American Medical Association before they receive cards authorizing membership on these hospitals' staffs. It is, therefore, logical that such hospitals would approve of the above action of the American Medical Association. But, it is also logical that hospitals living up to the standards set forth by the American Medical Association might expect that organization to require its members to practice only in hospitals whose standards, ethical practices, equipment, et cetera, are such as to merit the approval of the national society. It is not fair to the patients or to the hospitals which are striving to live up to the standards set up by the profession that members of the American Medical Association should take their patients to hospitals other than those meeting the requirements of the American Medical Association.

Public and Private Hospitals

A SHORT time ago the county commissioners of the counties adjacent to Denver County met with the representatives of the two public hospitals located in Denver and drew up an agreement as to who should care for the accident cases. The account of this proceeding reminded one somewhat of the story of the Lord and the Devil dividing up the dead. In delegating the care of these cases no mention was made of the private hospitals and their ability to care for emergencies. The private hospital administrators, from their point of view, strongly feel that their institutions can give just as efficient

emergency service as can the public hospitals; and it is hoped that the public hospital authorities will in the future be able to realize the good points of the private hospitals.

The hospitals in Colorado are too few in number to justify either the public or private group in attempting to get along without the cooperation of the other. Let's each boost for the interests of both groups.



Dr. Maurice H. Rees, Dean of the University of Colorado School of Medicine and Hospitals, gave a very interesting lecture at the "Post's University" in Cheesman Park early in August.

His lecture presented to the layman in a very understandable manner the problems of the hospitals, and gave an especially clear explanation of the present hospital rates. Comparisons were given which showed that hospital services cost the public no more than do other things which make up living expenses. The subject was so clearly and effectively presented as to entirely justify in the minds of the audience the present rates charged by hospitals for their services.



Annual Meeting

THE Colorado Hospital Association will hold its Annual Meeting at the Cosmopolitan Hotel in Denver, October 25 and 26, 1934.



No Group Hospitalization

THERE have been rumors and rumors regarding the adoption of group hospitalization policies by the hospitals of Denver. At this particular time the Denver hospitals have not adopted any such plan.



Mr. Guy M. Hanner, Superintendent of Beth-El Hospital, Colorado Springs, announces that the length of the nursing course given by that hospital has been extended from three years to three years and four months.

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COOPERATION VERSUS COMPETITION

We can remember when they said competition was good for business. We are now wondering just what business they had reference to? Perhaps it was horse racing, prize fighting, etc. It is a sure bet that competition did not add to the welfare and wealth of our respective communities, and it now becomes evident that COOPERATION is what is needed in all lines of endeavor and business, including the farmer, the baker and the candlestick maker, and all. If we are to make proper progress and go forward, everyone should be interested in everyone, provided, of course, his business or service is worthy and legitimate. For instance, the DOCTORS and SURGEONS provide our people protection from bodily ills and diseases, and the INSURANCE COMPANY cooperates and acts as a clearing house to help meet the expense of this humanitarian service rendered by the doctors. So it is essential that the doctors and insurance companies fully cooperate if the best community interests are maintained. Therefore, both DOCTORS and INSURANCE COMPANIES are very essential to the welfare of any community, as the following facts will disclose:

ONE PERSON is accidentally KILLED every FIVE MINUTES, 11 every HOUR, 273 EVERY DAY, and more than 100,000 every YEAR. There is an accident in the U. S. every TWO SECONDS ALL DAY AND ALL NIGHT.

There are FIVE TIMES more people KILLED OR INJURED YEARLY than die from natural causes.

More people die from accidents than from tuberculosis, pneumonia and all diseases of the heart combined.

A person is TWICE as liable to die of ACCIDENT as from old age. THANK GOODNESS, everyone recognizes the VALUE OF LIFE INSURANCE; BUT TOO MANY fail to recognize the VALUE OF LIVING INSURANCE.

—AND—

—The doctors of the U. S. treat more people EVERY THREE DAYS than all the undertakers put together bury in a year.

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HOLIDAYS AND SICK LEAVES AMONG HOSPITALS OF COLORADO

WALTER G. CHRISTIE
DENVER

The writer presented at the annual meeting of the Colorado Hospital Association last November a paper entitled "Salaries and Vacations in the Hospitals of Colorado." There was immediately a request for a supplemental paper on "Holidays and Sick Leave." This paper is the result of such a request and may prove to be rather dry, as necessarily it must be, composed of statistics.

There were twenty-seven questionnaires sent out and twenty replies. The first subject taken up was "What holidays do you allow during the year?" Four hospitals gave no holidays, two gave 3, one gave 4 half holidays, nine gave 6, two gave 7, and one gave 8. Those giving six and seven holidays per year designated the following days: New Year, Memorial Day, July 4, Labor Day, Armistice Day, Thanksgiving and Christmas. The hospital giving 8 holidays was a Jewish institution which included in addition to the above list the Jewish New Year.

The groups getting these holiday privileges were as follows:

	Full Day	Half Day
Office	14	
Nurses, graduate	8	3
Diet	8	2
Laundry	12	2
Housekeeping	11	1
Engine Room	7	1
X-Ray	11	2
Laboratory	11	2
Maintenance	9	2

(Some work staggered hours, some Sunday schedule, some on call).

Question No. 2. "Do you grant any particular length of time for sick leave?" Eight hospitals answered yes, twelve answered no. Of the affirmative hospitals the amount given follows:

How much sick leave given, to whom and how much:

Grad. Nurses		Maintenance	
2 give	1 day	2 give	1 day
1 gives	3 days	1 gives	3 days
1 gives	7 days	1 gives	5 days
1 gives	5 days	1 gives	7 days

1 gives 10 days	1 gives 10 days
1 gives 14 days	1 gives 30 days
1 gives 30 days	
Office	
2 give	1 day
1 gives	5 days
2 give	7 days
1 gives	10 days
1 gives	30 days
Misc. Other Help	
1 gives	1 day
1 gives	3 days
1 gives	5 days
1 gives	7 days
1 gives	10 days
1 gives	30 days

With full pay:

Graduate Nurses.....	7 yes	7 no
Office	7 yes	6 no
Maintenance	7 yes	6 no
Miscellaneous	7 yes	6 no

Four replied that each case is dealt with on its own merit.

Is sick-leave allowance increased with term of service?

Ten replied no, 10 did not reply.

Two gave no sick leave until 1 year of service.

Question 3. "If an employee is hospitalized, for how long a period of hospitalization is salary paid?" Nineteen replies as follows:

- 7 answer none
- 1 answer 1 day.
- 1 answer 3 days, office 1 wk.
- 1 answer 5 days, after 1 year.
- 1 answer 7 days each year, cumulative for 4 years
- 1 answer 10 days nurses, others 6 days.
- 1 answer 12 days.
- 1 answer 30 days.
- 1 answer up to 6 months.
- 2 answer no special time—determined in each case
- 1 answer yes, if no substitute is hired.
- 1 answer reasonable time.

Do you give free hospitalization? Twenty replies:

- 12 answer yes, 5 no.
- 2 answer some.
- 1 gives to graduate nurses only.
- 4 limit it.
- 1 has prepayment plan—75c per month.

Do you charge employee for hospitalization?

- 9 answer yes, 9 answer no.
- 1 answers some.
- 2 do not reply.
- Of the 9 answering yes, 6 charge after periods ranging from 6 days to 2 weeks.
- 1 charges all but graduate nurses.

Do you discount employee's bill?

- 9 answer yes, 2 no.
- 1 adjusts discount to case.

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*"In mortgages . . .
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how selected?"*

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1 answer 33 $\frac{1}{3}$ to 50%

3 answer 50%

1 answer 50% on room, 75% on surg.,
x-ray, lab., etc.

Do you pay salary after compensation insurance begins? 15 replies:

11 answer no. 3 answer yes, 1 yes depending on circumstances.

It is apparent therefore from the above figures that there is a wide difference in the practice followed by the hospitals of Colorado, and it seems to me that it would be a good piece of work if the hospitals would get together and formulate a definite and coordinate policy regarding holidays and sick leave. As I remarked in my previous paper, it is necessary, if we are to expect loyalty and cooperation on the part of the personnel, to be liberal with them in such matters as vacations, and this same statement applies to holidays and sick leave. We cannot expect to receive much unless we give much, and I believe it would be good policy for all of us to be liberal in this respect.

Dr. G. P.

The backbone of our medical structure is the General Practitioner. Place him outside the picture and there is nothing left but a massive superstructure of "limitists" and "specialists."

Great has been the hue and cry that medical care is overburdensome to our fellow citizens. Repeated and persistent complaining needs must attract our attention and consideration. What is wrong? Do we really know our situation or are we blindly awaiting a new deal? Lest someone be misled, allow the writer to explain that he is not one of those who receives "the big money." Now, let's GO!!

A few years ago, the patient came to his doctor with full confidence that the physician of his choice was to continue to be the patient's own personal doctor until death or debt did them part. There were no laboratories and no x-rays. "Old Doc" did his level honest best with the tools he had—his brain and his bag of bottled pills and lotions. The results—well,—everyone of us agree



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that they weren't spectacular; but certainly there were recoveries recorded else what would we do for forefathers!

Now, Gentlemen, approximately but 20 per cent of those who visit your office need more than palliation and peace of mind. The other 80 per cent will get well no matter what you do unless you interfere with nature. Listen! How many of that 80 per cent do you put to the totally unnecessary expense of laboratory tests, x-rays, specialist's consultation fees, and high priced medications? Figure it out—80 per cent—an overwhelming majority of our patients could be saved money by us! Now isn't the ruthless and thoughtless spending of money by us for our patients a breach of confidence? True, our patients may demand all such because the neighbor received that form of treatment, but an honest and sincere explanation should suffice. Yes, we may lose a patient now and then—but we lose 'em now and then despite most expert consultation, etc. Certainly, we'll not lose because of the expense!

Again, what's wrong with the general practitioner? Here's what's wrong—the "specialist" and "limitist" has—by propaganda, suggestion, and innuendo—caused to be developed in the average physician, of "general" classification, a feeling of inferiority to such an extent that he who is not a "specialist" or "limitist" becomes part of a large reference bureau which supplies patients to the superstructure whose fees must, perforce, be larger. The result—cost of medical care!

Listen! Dr. G. P., those referred patients are yours! Yours by right of discovery and yours because of the placing of confidence! It's up to you to protect your patient.

Dr. G. P., it's time to bestir yourself and awaken to the fact that you are the big majority! You are the family physician! You are the backbone of medicine! Where are the papers YOU read before societies? Where is YOUR plan on economy? What have YOU proposed to alleviate the situation? What responsible office do YOU hold?—San Diego Medical Bulletin.

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WALTER WOODRUFF KING
President-elect, The Colorado State Medical Society

EDITORIAL NOTES AND COMMENT

Long Live the King!

FEW men achieve the distinction of being either King or President. Walter Woodruff King is readily both—the first by chance, the second by choice. The choice, it should be added, is that of the Colorado State Medical Society, which elected him to its highest office at its recent Sixty-fourth Annual Session.

Walter Woodruff first became King in 1873 when he was born into the family of a Methodist minister of regal patronymic. His early years were spent at his birthplace, Lindenville, Ohio. As a youth he was graduated from high school at Cortland, Ohio. While still a princeling Walter came west in search of health, and after testing and rejecting the climate of California, he settled in the dominion of Colorado. Here Walter attended the University of Colorado, where he received the degree of Doctor of Medicine in 1902. As Doctor King, the young man went to Cripple Creek, where he became established in practice with Dr. Vivian R. Pennock. Shortly afterward Dr. King married Myrtle Hope Mitchner, thereby manifesting royal taste.

Democratic in his work, Dr. King became city physician at Cripple Creek. Shortly he was made secretary of the Teller County Medical Society, and later president of the same society. He also represented Teller and Park Counties in the State Senate for a period of eight years. In 1922, twenty years after his graduation, Dr. King removed to Denver, where he continued his active medical practice. A little less than a year ago he was elected president of the Medical Society of the City and County of Denver. With his term of office yet unexpired he now becomes president-elect of the Colorado State Medical Society. His frequent election to high offices confirms the belief that the new president has regal attributes which give sanction to his name. C. S. B.

The Annual Session

THE Sixty-fourth Annual Session of the Colorado State Medical Society is now history. It is no strain on editorial veracity to opine that the Society has again set a new record of enviable achievements. The registration of 619, including 426 regular society members, surpassed any previous record by about 100. The 193 visitors were chiefly doctors from adjoining states and managers of commercial exhibits. But the large attendance does not tell the whole story. The usual sparse mornings and late afternoons were largely overcome. While the second day peak attendance probably fell short of previous meetings, the man-hour attendance at the convention was easily the best in history.

As was to be expected the doctors of Colorado Springs, through the agency of appropriate and industrious committeemen, provided a range of entertainment that would satisfy the taste of the most particular connoisseur of diversion. The smoker certainly provided ample opportunities "to smoke." The formal reception and banquet gave stuffed shirts and gorgeous but skimpy gowns a chance to curtsy to the brass collars of the Society. The "we have with us tonight" was conspicuous for its infrequency. First Doctor Madler presented Doctor W. L. Bierring, President of the American Medical Association, who spoke charmingly of the place of Coloradans in American medicine. Then the chairman introduced the "anatomist," Dean James Grafton Rogers, whose charming address and facile mind never fails to interest and entertain. Then too there was the inevitable golf with its teleologic 19th hole. But why go on? It was just a mine-run doctors' party with the characteristic embellishments of our El Paso County hosts.

Despite the lure of recreation and fellowship the scientific table was amply spread. The program committee provided an agenda

of superior worth. A seminar on fractures beguiled 135 into the first meeting, while another on ductless glands held quite as many to the last. Lest the intermediate day lack team oratory an obstetric symposium was thrown in for good measure. In addition to these, conventional papers covering timely scientific subjects had their particular appeal. Special mention should be made of the address of Doctor Bierring on Heart Disease and the General Practitioner, and that of Doctor Joseph Brenneman of Chicago, on Acute Abdominal Conditions in Children. These two distinguished guests vied with each other in simplicity and clarity in presenting valuable scientific material.

The skin clinic of Friday afternoon had a good attendance and received much favorable comment. Bedside polyclinics were well prepared but the attendance was poorly allocated.

What seems worthy of note, is that the entire assembly was housed under one roof. Scientific exhibits of genuine value were close at hand. The essayists began and closed promptly. The credit for this feat of parliamentary achievement is due President Madler. This feature of "on timeness" as well as the provision for so many symposia probably marked the individuality of the meeting, upon which a plebiscite of expressed opinion would be valuable.

What the legislators did in the House of Delegates will be reviewed later but if their election of Doctor Walter King is a sample, we would venture the guess that their deliberations were of a high order.

C. F. K.

Quarantine Regulations

A COMMUNICATION from Denver's Department of Health and Charity has been addressed to physicians and others concerned in an important innovation in communicable disease control:

Your attention is called to the following changes in the quarantine regulations of the City and County of Denver:

Chickenpox, Measles and Mumps will not be quarantined.

This move has been endorsed by the City and County Medical Society and is also approved by the American Public Health Association. We feel that it will increase the reporting of Communicable diseases. It will be an advantage to the patient because under the new regulations a contact will be excluded from school unless there is a Health Department record of his having had the disease. Reporting will be of particular advantage to the pre-school child in that there will be a Health Department record when the child becomes of school age. Where such a record exists no school permit will be needed.

Isolation and protection of others in diseases not quarantined will depend upon the whole-hearted cooperation of the medical profession; and the education of the public in the isolation of patients having Communicable Diseases and in the care to prevent spreading by contacts.

Permits. If a case has been reported to the Health Department a permit will not be required to return to school. The record of the report and the permission of the attending physician will be sufficient. If no report has been made of the case, a permit must be obtained from the Health Department before the child will be allowed to return to school.

Scarlet Fever: Quarantine period will be shortened to from two to four weeks, depending on the amount and the severity of Scarlet Fever in the City. The length of quarantine and the release of the patient will be determined by the Health Department, and patient will be released after examination by a Health Department physician. Cases with complications will not be released until the complications have been cleared up.

Where the cooperation of the family is such that there is reasonable assurance that there will be no contacts with the patient and where living conditions are such that isolation is possible, every effort will be made to permit the wage earner to live at home during the quarantine period. The same regulations will hold true for Diphtheria.

Public Health Nursing Service. Pamphlets containing information for the education of the public in the isolation of Communicable Diseases will be available. When a physician reports a case, he will be asked if he wishes to have a Public Health Nurse visit the patient. This applies only to those diseases which are not quarantined. The Public Health Nurse will continue to visit cases of diseases that must be quarantined.

This move is an experiment, and whether or not it can be continued will depend upon the cooperation of the physicians in reporting all cases of Communicable Diseases. We want to urge the reporting of any difficulties or any suggestions to the Health Department as the plan is experimental and we can only make a success of it by finding our mistakes and rectifying them.

Denver has assumed a role among the communities leading the advances in this field. There are undoubtedly many other communities served by this journal which are interested in this move, and this communication may add impetus to their health program.

Fate of Bone Transplants

WHEN contemplating the fate of transplanted bone, one is tempted to assume that the substance itself survives the transplantation. Such is the prevalent erroneous belief. This is never true of the bone as such; however, under the most favorable circumstances, a few peripheral bone cells and osteoblasts may survive. The transplant as a whole undergoes necrosis. This process begins promptly. Within a few days it acts as a dead calcareous substance which undergoes absorption and replacement by new bone. These two processes go on simultaneously—the necrotic bone disintegrating as fibroblasts, osteoblasts, tufts of newly formed blood vessels and trabeculi of new bone invade the region.

In massive transplants of dense bone, such as that of the tibia, proliferation may exceed absorption. When more spongy bone, such as that of rib or ileum, is used absorption may occur too rapidly and fracture occur. This apparent disadvantage may be outweighed by the fact that this type of bone begets more rapid and complete vascularization and osteogenesis than that following the engrafting of the harder bone.

We should thus consider grafted bone as merely a temporary splint and osteogenic agent. Its mechanical function is comparable to the usual role played by buried absorbable catgut sutures.

Spider Bite

SCIENTIFIC and lay publications have recently carried articles upon the subject of spider bite. In many localities serious sickness and death have followed certain bites of this arachnid, particularly the "Black Widow."

A useful therapeutic suggestion, in addition to the general symptomatic treatment, has been made by Dr. M. Medlin in a recent issue of the Tri-State Medical Journal. One part of magnesium sulphate, 50 per cent solution in ampoules, is mixed with two parts of sterile distilled water. Four to ten c.c. of this solution is injected in and about the

inflamed area. The author claims that this procedure relieves pain, in even the most severe cases, and prevents sloughing.

CORRESPONDENCE

Wednesday, September 26, 1934.

To the Past Presidents of the Colorado State Medical Society:

Dear Doctors:

It has come to the attention of those responsible for the several activities of the Annual Session that some of the Past Presidents, who were caricatured in the menu-program of the banquet which terminated the Sixty-fourth Annual Session, have been offended by the method in which this was done.

Since the responsibility for all departments of the meeting, in final analysis, rests with the undersigned, we feel it our duty and privilege to offer profound apology to those whose feelings were injured, and to express deep regret that the authors of the menu-program, in their effort to create a spirit of levity, failed to consult each Past President before issuing it and thus inadvertently offended those whom they highly respect.

It is our sincere belief that none of the items was intended to be taken seriously. It is our further belief that it was farthest from the minds of the authors that any misunderstanding would follow. The following quotation from the menu-program itself is strong evidence of this conception:

"This special Ballyhooley Edition of Colorado Medicine is in all humility dedicated to the Past Presidents of the Colorado State Medical Society. Their lives speak for themselves. They need no eulogies other than those already provided by their personal successes and the success of the great organization they have honored and that has honored them. They really need no advertising."

A copy of this letter is being presented to Colorado Medicine for immediate publication.

Respectfully,

N. A. MAIDLER, M.D., President.

J. S. BOUSLOG, M.D., Constitutional Sec.

LEO W. BORTREE, M.D., Treasurer.

HARVEY T. SETHMAN, Executive Sec'y.

K. D. A. ALLEN, M.D.,

Chairman, Committee on Scientific Work.

JOHN B. HARTWELL, M.D.,

Chairman, Committee on Arrangements.

WILLIAM A. CAMPBELL, JR., M.D.,

Chairman, Banquet Committee.

PRESIDENTIAL ADDRESS*

NICHOLAS A. MADLER, M.D.
GREELEY

Vice President Garner was once asked why he so seldom spoke in public. "When you make a speech," he replied, "you invariably displease a minority which never forgets, and the majority that you please forgets over night." I appreciated his answer, both as characteristic of the man, and as descriptive of my own position.

In keeping with the general innovations of the program, the presidential address this year will not conform to the theme of past presidential addresses; it will be merely a discussion of some of the problems that confront us in the practice of medicine, and of the efforts of the State Society in the solving of these problems. I hope, in my treatment of these questions, I shall reverse the unfortunate experience of Mr. Garner, that the minority, which it seems must inevitably be displeased, will forget over night, and that the majority, of which I have perhaps too sanguine hopes of pleasing, will not forget.

While looking over the history of this Society, I was struck by its phenomenal growth in the short period of its existence. The Colorado State Medical Society was organized in 1871, with a membership of sixteen. At that time, it was estimated there were one hundred and fifty physicians in the state. We now have a membership of over one thousand, with approximately one thousand five hundred physicians registered. Sixty-three years ago, one physician out of ten was a member of the Society; today, two in every three are members. To me, that is a remarkable increase; it exceeds the country's average, but it is not enough. Every competent physician in Colorado should be a member of the Colorado State Medical Society, so long as he is governed by those ethics, the basic principles of which the years have proved to be indispensable for the guidance of all reputable medical doctors.

I have been a member of my county and

state societies since I was graduated from medical school. The benefits which I have derived from this association are incalculable, and to me it seems incomprehensible that anyone should fail to profit. Of one thing I am sure: such a failure cannot be laid at the door of the society.

Much of the past progress of the medical profession has been attained through its organization. Its future progress, to an even greater degree, is dependent upon this factor. Rugged individualism as a concept has become largely discredited; to many it has become a joke. The people of the nation have learned, at an enormous expense, that a desirable and secure future cannot be achieved except through planning and co-operation.

We, of the medical fraternity, should take our cue from the organized planning which characterizes the political and economic life of the day. If a proof of this statement were needed, the recent conspicuous work of our Committee on Medical Economics would furnish that proof. It was they who insisted that all CWA workers, where government hospitals were not available, should be allowed the free choice of a physician. And thus they prevented a grave injustice to the many physicians who had, until then, provided these same workers with free medical care.

It was this Committee, likewise, which made the F.E.R.A. realize that medical care was a major need in relief, and that it should be included in budgets along with food, shelter, and clothing.

We are now faced with a number of other social changes. The National Administration is trying to develop a practical plan for social insurance, providing for old age pensions, employment insurance, and these, of necessity, must include a general health insurance. We can feel entirely confident that our Committee on Medical Economics, as it is now constituted, will do its utmost to secure for all the right of the free choice of a physician, and the supervision

*Read before the Sixty-fourth Annual Session of the Colorado State Medical Society, Colorado Springs, September 20, 1934.

of all medical contracts to insure their fairness not only to the principals of the contracts but the rest of the profession as well.

It has come to be recognized that social progress must be preceded by an improvement in the public health. For this reason, I wish to urge the continuation of the policies of our Committee on Public Health. While it was not expected that the work of the Committee would be productive of any immediate results, it has yet made a definite headway in a task which must inevitably be slow. It has first to overcome the deep-seated prejudices of the public and to force upon it the realization that on such matters as the proper disposal of sewage, the eventual returns are many times that of the original outlay. The aims of the Committee, delayed in fruition by a necessary educative process, are of far-reaching consequences and they should not be abandoned.

It has been argued by many, well informed on the subject, that the medical profession is rapidly becoming overcrowded. They suggest as a remedy that both the number of medical schools and the number of medical students be limited. Such a course may be advisable for the country at large; there is some evidence of overcrowding, but we should not forget that ours is the only medical school between the mid-west and the Pacific. Both the school and its affiliated hospital are needed and they should receive the whole-hearted support and cooperation of each of us.

It was against some well-founded objections that the Colorado General Hospital was organized and built. The major contentions were that a state of Colorado's population could not afford to support a medical school and charity hospital of such proportions and rating; and that the topographical nature of the state, and the consequent unequal distribution of population would not allow an impartial distribution of service. The advantages, however, far outweighed the disadvantages, and the hospital was built, and in spite of these and other handicaps it is carrying on.

In an effort to bring about closer cooperation between the Medical School and the practicing physicians of the state, Dean Rees,

at the Pueblo meeting several years ago, requested that a committee be appointed to act in an advisory capacity to the Medical School and Hospital in its relation to the Medical Society. Since that time, the Committee has received many complaints. It has been alleged that patients, well able to pay a private physician, were often admitted as charity cases; that the Commissioners of certain counties were sending ineligible patients in payment of political debts and that, in many instances, these Commissioners, in flagrant violation of the law, were forcing patients to repay the county for monies advanced by that county in payment of hospital bills. There were complaints of indirect advertising by the hospital, and by certain members of its staff through newspaper publicity, and of the practice of medicine by members of its staff in competition with doctors engaged in private practice. The Committee, while fully cognizant of the increased sensitiveness of many physicians who have recently experienced financial reverses, have yet found that many of these complaints were justified.

Dean Rees has been most cooperative with the Committee and, working together, they have successfully solved many of the difficulties with which they were faced. We have every reason to believe, consequently, that they will deal satisfactorily with the problems on which they are now working. Of these, one of the most difficult is the question of whether the Hospital should be maintained on a strictly charitable basis with the elimination of pay and part pay patients.

The House of Delegates last year appointed a Committee on Cancer Education, which in turn appointed several sub-committees known as cancer teams consisting of a surgeon, a pathologist, and a roentgenologist. These teams were to function for five years, visiting doctors throughout the state, emphasizing early diagnosis of cancer, presenting all the most recent information, and in other ways refreshing the practitioner's knowledge of the subject. They have been, so far, very well received. It is these excellent results which have attended the work of the cancer teams that convinced me

that the same efforts should be attempted in the field of tuberculosis. We all recognize that an early discovery in cases of tuberculosis is even more important than in cancer. It is more responsive to treatment; it is a communicable disease, and undetected, therefore, is a menace to the public as a whole; moreover it occurs often in early life, and untreated, results either in death or in a blighted future. All of us are aware of these facts, and yet each day we see tragedies which, with greater vigilance on the part of the physician, might have been averted.

There is no doubt that the teaching of the diagnosis of tuberculosis should be given an important place in the curricula of medical schools.

I hope that the House of Delegates will see fit to appoint a Committee on Tuberculosis Education to function similarly to the Committee on Cancer Education. If it is one-half so successful, I shall feel that we, like Othello, "have done the state some service."

Much has been written by physicians, by the laity, and by specially appointed committees on the high cost of medical care. The general public is prone to blame the doctor for the greater part of this cost, while, in reality, he is the actual recipient of an inconsiderable portion. Often much of the expenditure is for things contributing to the comfort of the patient but not vital to his health. There is also the cost of the newer things in medicine, x-ray, laboratory and other armamentaria necessary in the correct diagnosis and treatment of disease. The doctor is to be condemned for excessive expenses only insofar as he is responsible for a prodigal employment of these facilities, either directly, through ordering their use unnecessarily, or indirectly, through fostering a distorted opinion of what constitutes adequate care in illness.

Aside from an increased alertness on the part of the doctor, in an effort to prevent unnecessary expenditure of his patient's money, no greater saving could be effected than through a revision of nursing requirements, a revision both upward and downward. This could be brought about by a

division of nurses into two classes, nursing attendants and graduate nurses. The requirements for the first class, nursing attendants, would be, in brief: two years of high school education or its equivalent, and, in addition, professional training sufficient to enable them to adequately perform the more simple duties of sick room care, to make beds, take temperature, count pulse, give enemas, prepare diets, give baths, administer hypodermics and medication. They should be willing to nurse in the home, and aid, when necessary, with the housekeeping. Since the educational requirements for this group would be somewhat lower than those of present graduate nurses, their charges would be more moderate. The training of this group should be undertaken, in the beginning, by one or two selected hospitals in the state. Their status, like that of all who nurse for pay, should be defined by law, and state registration or licensure would be compulsory.

This would give us, then, a type of nursing service sufficiently trained to care for all but the most critically ill, and, which is of great importance, a type of service available to families of small income.

The requirements for the second class, graduate nurses, would be on an altogether different basis. Their training would include basic science instruction of collegiate grade, hospital experience, instruction in the principles of public health, social service work and courses in administration. They would be "prepared not only for the practice of a profession, but for life and its manifold home and community duties as well."§

It is important that the nurses of this class be thoroughly trained; that the requirements be strict but applicable; that in the beginning, as near as is feasible, they be selected for intelligence, health, energy, personality, and for executive ability.

The duties of graduate nurses would be supervisional and administrative. They would hold positions of responsibility and act as an integrating force between the economic, social and professional factors. They would serve in clinics and hospitals, mainly

§"Medical Care for the American People."

in an administrative capacity, supervising nursing attendants in these institutions and, wherever possible, in private homes. It is from this group that public health nurses, the Visiting Nurses Association and other governmental and church agencies would choose their workers.

Few hospitals, naturally, would like to undertake this thorough training of nurses, but this difficulty could be overcome by placing the education on a tuition basis, which would, of itself, result in an enormous improvement of the quality of instruction.

I cannot overemphasize the need of reform in nursing practice. There has been, for a long time, extensive unemployment among nurses. Their training is, in many cases, not only inadequate but of the wrong kind. They are often taught subjects for which they will never have the slightest use. The changes which I have roughly outlined would, I believe, bring about a rectification of these defects.

In some instances, a large share of the cost of medical care is expended for specialists. This, of course, is entirely in accord with medical requirements, but certain standards should be maintained in regard to specialists. The most logical method in which this could be brought about is that the various national organizations require every practitioner, describing himself as a specialist, to be especially equipped in that particular branch of medicine.

Another condition which, in my opinion, merits the attention of this Society, is the educational requirements for those practicing the healing arts. This standard was maintained at a reasonable level, until the present, by one board of examiners, before whom all applicants had to appear. We are now faced, however, with the danger of a multiplicity of boards, one for every cult, and with no suitable central control.

This situation has been experienced by a

number of states, and has been met satisfactorily by nine, including the District of Columbia, by the enactment of Basic Science Laws and the creation of a Board of Examiners in the Basic Sciences. It is the function of this Board to determine that all who appear before it be reasonably proficient in the elements of basic science, underlying the art of any method of healing, in the absence of which no one should be allowed to assume full responsibility for the life and health of others.

The members of the Basic Science Board should be appointed by the Governor from the faculties of the colleges and universities of the state, one member for each subject on which the applicant is to be examined. The subjects that are considered basic, and therefore indispensable, are: pathology, anatomy, physiology, bacteriology, chemistry, and hygiene.

It should be understood that "the functions of a Basic Science Board are in no way in conflict with the functions of a professional board," the certificate issued by it "merely serves to entitle the holder to examination by the professional board,"[†] which, in its turn, determines the applicant's skill in adapting the basic sciences to that particular healing art. This makes the act, in effect, self-enforcing.

The action of this Society in influencing the enactment of Basic Science legislation by the state, could not be construed except as a measure for the protection of the public health. Whether its welfare be endangered by an emergency, such as an epidemic, or more insidiously by the practice of the healing art by practitioners morally corrupt or insufficiently qualified, the public has long come to look to the organized medical profession for guidance in matters relating to its health. It is a responsibility that has been placed upon our shoulders and which, I am proud to say, we have borne unselfishly in the past. We have striven not only to keep abreast of the needs of the public, but to foresee its needs and to forestall them.

[†]"American Medical Association Bulletin, December, 1927.

SEWAGE DISPOSAL—A MAJOR PUBLIC HEALTH PROBLEM IN COLORADO*

EDWARD N. CHAPMAN, M.D.
COLORADO SPRINGS

We have in Colorado a very high incidence of infectious intestinal diseases and a very high death rate from them. This is particularly true of the filth diseases—typhoid fever and infectious diarrhea—so called because they are transmitted through human filth. Dr. Rosenau of Harvard used to tell his classes in Hygiene that a case of one of these diseases usually represented a short circuit between the anus of one individual and the mouth of another. Where these diseases are present there will be present conditions permitting human excreta to come in contact with food, milk, or water. Conversely, if food and human filth are kept apart, these diseases do not have to be seriously reckoned with.

A survey of our situation in Colorado was published¹ in the January, 1934, issue of Colorado Medicine. The facts brought to light should be read by everyone living in this state. Let us review briefly some of the more important points and examine a few of the charts which are now in more complete form. No attempt will be made to reproduce all the significant statistical data presented in that paper.

Most of our cities and towns dump their sewage untreated into our streams and rivers. These streams and rivers, unlike those in the eastern part of our country, are entirely too small to dilute or purify properly the stuff we pour into them. They remain bacteriologically open sewers for the balance of their course through our state. Furthermore, we, unlike the eastern states, use the water from these streams for the irrigation of market produce. This offers an ideal method for the transmission of intestinal disease, for as long as there are cases of typhoid fever, dysentery, or infectious diarrhea, in

a city not equipped for proper sewage disposal, the organisms causing the disease will be carried out in the sewage to the irrigated fields to be deposited directly or indirectly on vegetables growing in these fields. Personally inspect, as I have done, the conditions of some of these irrigation ditches and truck gardens below our cities. In the ditches, and sometimes deposited between the rows of vegetables, may be seen feces, disintegrated toilet paper, sanitary pads and even contraceptive devices. It is vegetables grown under these conditions that come into our homes are handled by our housewives, and finally are eaten by our people. That the grossest pollution is possible under this system is evidenced by the fact that lettuce occasionally has been served in public restaurants and dining rooms with fecal material adhering to the leaves.

We have had recently a graphic illustration in the Chicago amebic dysentery epidemic of what can happen when sewage and food come together. A board of experts commissioned to investigate the epidemic reported² that it was not caused by food handlers, as was suspected at first, but rather from the bursting of sewage pipes in the cellar of the Congress Hotel. The contents flooded the kitchen and food and refrigeration compartments of this hotel. Even this short exposure to germ laden sewage was enough to start an epidemic the last of which has not yet been heard.

That we do not escape serious infection from our own revolting situation is shown by our death rates from intestinal disease when compared with those of the United States, our neighboring states, and California, a state which has a larger percentage of Mexican and foreign³ born than we. California has also extensive areas under irrigation but she does not permit the use of sewage contaminated water in the irrigation of market produce³. Nebraska and Wyoming have no counties where sewage contaminated water is used⁴. Utah and

*From the Committee on Public Health of the Colorado State Medical Society; read at the Society's Sixty-fourth Annual Session, Colorado Springs, September 21, 1934. The author is indebted to Drs. Boissevain and Ryder for checking bacteriological data, and to Messrs. Alfred Cowles III and W. F. C. Nelson for assistance with regard to statistics presented.

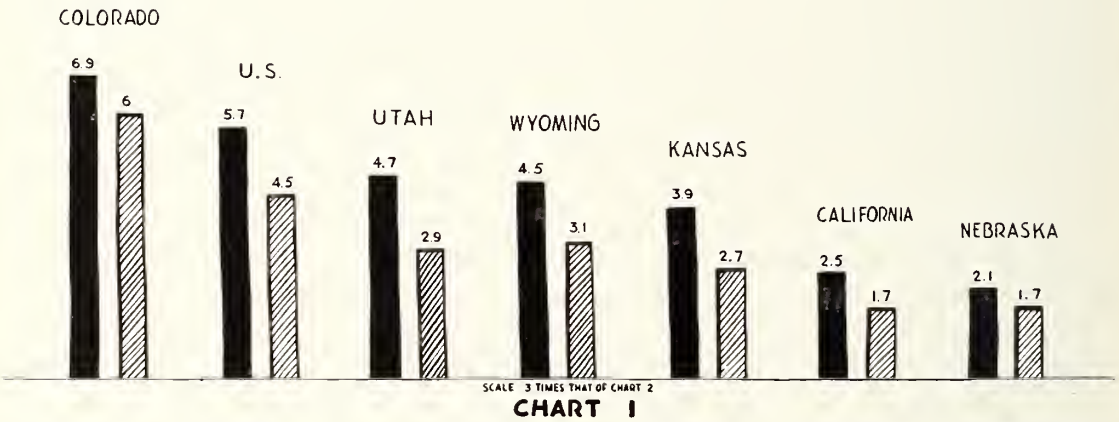
Kansas each have only one county using contaminated water for irrigation⁵. I was unable to obtain comparable data for Arizona and New Mexico, which have been in the U. S. Registration area only a short time.

Such figures as I was able to obtain would make one suspect that they are faced with the same problem that exists in Colorado. They are based on the latest statistics of Charts I and II illustrate these comparisons.

TYPHOID FEVER

Average Annual Death Rate per 100,000 Population

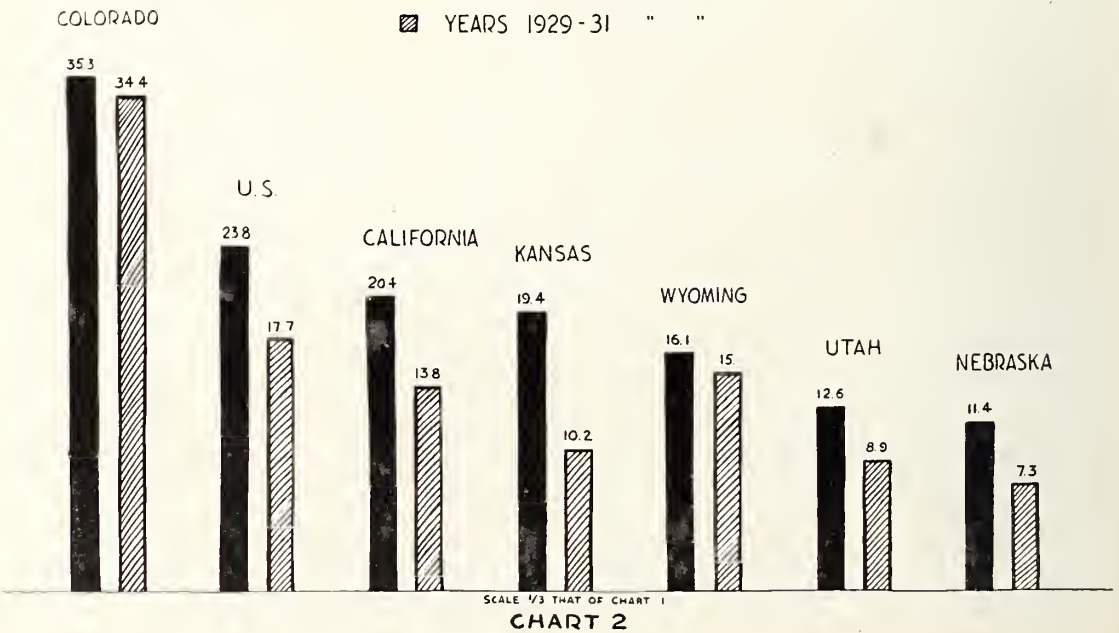
- YEARS 1923-31 INCLUSIVE
- ▨ YEARS 1929-31 " "



DIARRHEA + ENTERITIS UNDER 2

Average Annual Death Rate 100,000 Population

- YEARS 1923-31 INCLUSIVE
- ▨ YEARS 1929-31 " "



the U. S. Bureau of Public Health. These can be obtained in almost any public library.

Our death rates from diarrhea are especially high among babies and children. Infants are most susceptible to contaminated food and this death rate is a very delicate indicator of contamination. Three thousand five hundred babies and children under the age of two have died in Colorado in the past ten years from diarrhea alone. These dead babies would populate a town the size of Montrose and more than equal the population of Brighton or Rocky Ford. They would compose a town almost twice the size of Glenwood Springs. Think of these facts the next time you drive through these thriving municipalities. A child born in Colorado between 1929 and 1931, in a county having our average death rate, faced five times the chance of dying from diarrhea that he would have faced had he been born in the average Nebraska county.

Each summer and early fall at the time the bulk of our sewage-raised vegetables come upon our markets, in all the irrigated

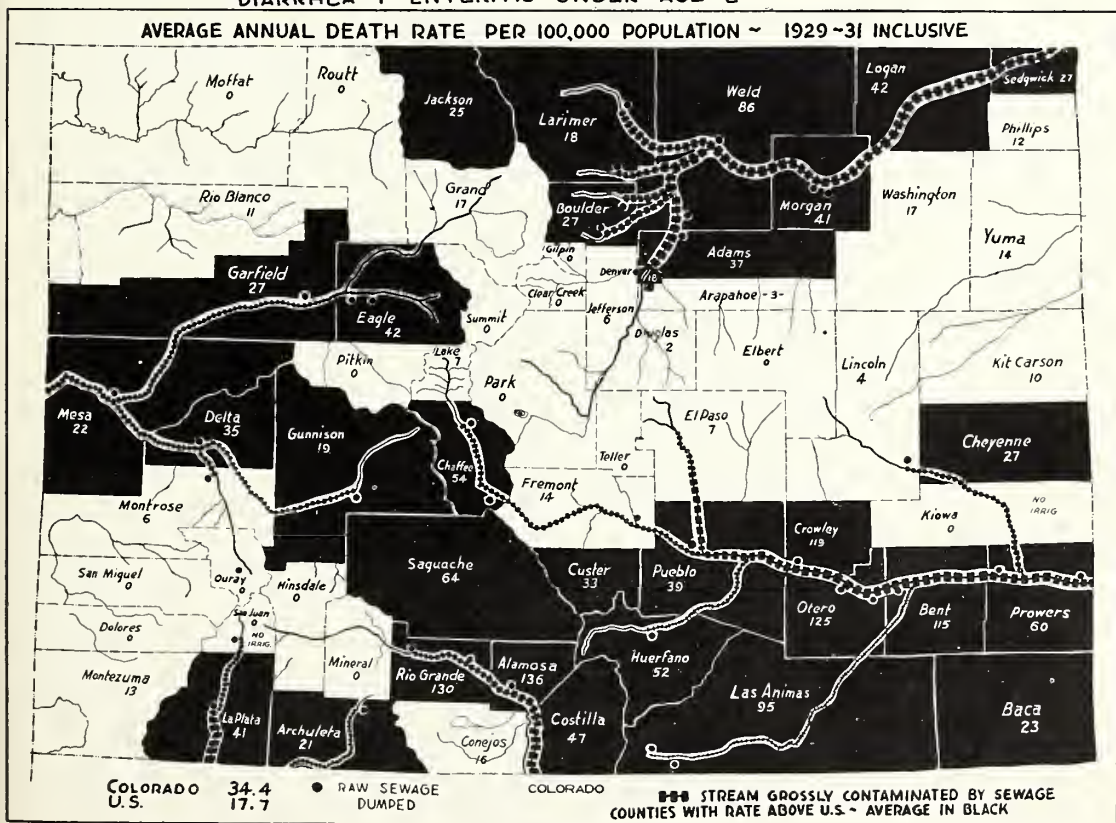
areas for which we have data, epidemics of diarrhea occur. These epidemics used to be frequent in eastern cities. Correspondence with boards of health of some of these cities reveals the fact that they are now largely unpleasant memories of the past, thanks to improved methods of sanitation.

The question has been raised: Granted that our incidence and death rates from this group of diseases is high and that we have an ideal method for their transmission, does sewage contamination have anything to do with it? Is it not possible that a contaminated domestic water and milk supply lies at the root of our troubles?

We find that a recent survey¹ of our domestic water supplies by the U. S. Public Health Service gives us a reasonably good bill of health. In general, the supplies of our large Colorado cities are well protected, but most of these large cities with good water supplies have a high incidence of intestinal disease. Hence domestic water transmission is not the answer. Our milk in Colorado is not uniformly good. This same re-

DIARRHEA + ENTERITIS UNDER AGE 2

AVERAGE ANNUAL DEATH RATE PER 100,000 POPULATION ~ 1929-31 INCLUSIVE



port which was made by Dr. C. E. Waller, now Assistant Surgeon General of the United States Public Health Service, showed that there was only a 64 per cent compliance by milk producers with regulations recognized throughout the country as necessary for the marketing of wholesome milk. Many dairies are inadequately screened against flies and poorly ventilated. Where the milk is pasteurized, frequently the process is not properly performed. However, this, with a few notable exceptions, seems to be a situation existing pretty much throughout the state and is not confined to any particular area. If our deaths from these diseases are caused chiefly by contaminated milk unrelated to anything else, we would expect our death rates to be uniformly high throughout Colorado. This is not what we find. Many of our counties—especially our mountain counties and those in which dry farming is the rule—have not had a death from intestinal disease in the three year period 1929 to 1931 inclusive. On the other hand, we find that with few exceptions our high death rates from the filth diseases occur in the counties whose irrigation water is grossly contaminated by sewage. The counties through which the uncontaminated portion of the South Platte, Arkansas, Rio Grande, and Colorado, flows in general show a very low death rate—the counties through which the sewage contaminated portion flows show high death rates ranging up to ten times the rate for the average of the United States as a whole. Not only can people in these regions contract these diseases from eating contaminated vegetables, but children play in these streams, flies breed in deposits left by them and then pass into unscreened dairies to transmit to the milk the bacteria picked up in them. A few of these are fishing streams.

The accompanying map illustrates the distribution of our death rates from diarrhea and enteritis under the age of 2, which, as we have said, is the most delicate indicator we have of sanitation. Note that the counties in approximately half the state are black, indicating death rates above the average for the United States. They are, in

general, the counties in which sewage is spread over the landscape through the medium of contaminated irrigation water. Our death rates from other filth diseases, like typhoid fever and dysentery, in general follow this same county distribution. Strangely enough, the picture should be almost exactly reversed for these are the counties containing our urban population. Throughout the United States urban death rates from intestinal disease are lower than rural rates because cities, as a rule, take greater precautions to safeguard milk, water, and food supplies from pollution than do country districts.

What foods raised with sewage-contaminated water are particularly dangerous? Fruits such as strawberries which grow close to the ground; vegetables eaten raw, such as lettuce, cabbage, celery, green onions, radishes, and parsley. It has been shown by competent bacteriologists⁷ that these vegetables reek with colon bacilli and that even thorough washing cannot be relied upon to reduce the colon bacillus count sufficiently to make them fit to eat. Cooking will destroy intestinal pathogenic bacteria, but the handling by the housewife of the vegetables preparatory to cooking, or their presence in the refrigerator may furnish an opportunity to transmit these bacteria to other foods. This is especially dangerous when articles of food intended for infant consumption are contaminated. It is as if the head of cabbage, for instance, was covered with black sticky tar. It cannot be handled without transferring the tar to the hands and to everything later touched.

All this sounds almost unbelievable in a civilized community. It is the sort of thing that exists in another form in China, where intestinal disease is rampant and American tourists are warned to avoid all green vegetables. Certain European countries use human fertilizer on their gardens but only after proper curing, thus killing disease-producing organisms. Animal fertilizers do not carry the germs of human intestinal disease. This condition in Colorado has been allowed to exist only because the majority of thinking people, the sort of people who are sensitive to matters of hygiene, have not dreamed

until recently of its existence. It has been taken for granted that our health officials were safeguarding us from any approach to so revolting and dangerous a situation. The condition has crept upon us from the time when we were straggling mining camps and small agricultural communities. It is obvious that the larger the city the more its sewage and the greater the chance for pollution of irrigation water used below its outfall.

I had the opportunity to study recently the sewage disposal systems of a number of cities and towns in California. Two methods have been used by inland cities—the sewage farm and the disposal plants—usually of the activated sludge type. The sewage farm at first glance seems a practical and inexpensive way of disposal, and at the same time permits the use of the valuable constituents of sewage in crop raising. Many of the smaller cities especially have used this method. A large farm is purchased, located as a rule four or five miles from the city. Sewage is piped to it and spread untreated on the land. Crops are limited to those not used upon the table, such as oats, alfalfa, fodder corn, and hops. Walnut, orange, and pear trees have been included also. These farms are usually leased by the city to tenants. In theory this seems an easy answer to the problem for all similar cities without large quantities of sewage, because of the relatively low capital outlay. In actual practice many of the cities have abandoned these sewage farms because of the difficulties in their operation. Unless the sewage is spread carefully and almost daily an odor nuisance has arisen. Tenants have tried continually to slip in patches of the more profitable salad vegetables, which has made necessary constant supervision and the destruction of these vegetables whenever found. The farms have become breeding places for flies. I gained the distinct impression that California's experience with sewage farming has not been satisfactory and that most of her cities have abandoned, or are in the process of abandoning, this method of disposal in favor of some form of treatment plant. A further disadvantage, and sometimes an expensive one, to sewage farming is the ne-

cessity of buying up all rights to the water content of the sewage.

This brings us to the question of why the farmers themselves have not objected to the situation as it exists in Colorado. In rare instances they have, with the result that outfalls have been carried below their farms, for it is against the law of Colorado to dump untreated sewage into our streams. For the most part the farmers have made no complaint because they have wanted the water content and they have received a continuous supply of free fertilizer—our excreta—without cost. Many of them are too ignorant to realize the danger to them and to their families from the presence of this contaminated irrigation water near their homes or the fact that the culecoides or buffalo gnats which pester and sometimes kill their cattle breed in quantities as a direct result of stream pollution.

In a civilized community such as Colorado I am convinced that all that is really necessary to end this dangerous condition is to inform the people of the facts. They are too alive to matters of elementary sanitation to permit a repellant situation such as now exists long to continue. They will demand, just as the people in California have demanded, a clean, safe, healthy place in which to live and in which to bring up their children. Every member of the Colorado State Medical Society should do his share in this spread of information. During the course of a year we come into intimate contact with perhaps 90 per cent of the families living in this state. A word to each will go a long way toward disseminating this much needed information. Refuse to purchase vegetables raised with sewage contaminated water. Know personally the conditions under which the vegetables you eat are raised and how efficiently your milk is pasteurized. The final solution in most instances will lie in some sort of sewage treatment plant. The type of plant is entirely dependent on the amount and dilution of the sewage and is therefore an individual engineering problem which must be faced by each city.

A sewage disposal plant for Denver was defeated by the voters of that city in Janu-

ary by only 700 votes, largely because a campaign of only two months of information preceded the election and without extensive newspaper publicity no short campaign is ever effective. Not only was there practically no helpful newspaper publicity, but also the people were told by the Post⁸, one of Denver's largest taxpayers, that a sewage disposal plant was a waste of money for Denver and figures as to cost of upkeep were quoted which were very much higher than the estimates of Mr. Howe, our state Sanitary Engineer. Denver could, with almost as much justice, send an armed squad from her police force into the counties lying below her on the South Platte River with orders to kill a certain number of inhabitants, particularly infants and small children, as to do what she is now doing—killing them with her germ-laden filth.

Boulder is building a sewage disposal plant at the present time. Colorado Springs has taken certain precautions this year, as it has done on occasion before, to safeguard its inhabitants from contaminated vegetables raised below its sewage outfall. All lettuce and other produce eaten raw, with the exception of cabbage, has been condemned and plowed under. This has undoubtedly lowered somewhat the incidence of intestinal disease in the city but has not corrected the pollution of the Fountain Creek. The voters are to pass on the question of a sewage disposal plant for this city next spring.

The Committee on Public Health of the Colorado State Medical Society several months ago requested that the State Board of Health enforce the law and demand that each city dumping raw sewage into streams used for irrigation should take steps to stop this procedure. This has been done. Where, after a reasonable length of time nothing is done, certain measures of coercion may be necessary. It is clearly the intent of the Colorado law that streams in this state shall not be polluted with sewage. Contaminated vegetables should be condemned and destroyed before they reach our markets. Farmers who suffer damages can sue cities which contaminate their irrigation water. If

additional powers to safeguard the health and lives of our citizens, especially our children, are necessary, they should be enacted at our next General Assembly.

If nothing is done we will continue to be one of the few remaining black spots on the filth disease map of our country; we will continue to lose our babies from diarrheal disease. The mixture of food and feces we now put into our mouths will continue the high incidence of diarrhea which now exists among us. Our sewage raised vegetables are likely to be barred from interstate commerce, as the U. S. Public Health Service is now threatening to do. Our reputation for lack of sanitation will continue to spread throughout the country, as it has done in recent years, to our own shame and at the cost of the business we derive from tourists and health seekers.

Is this what we want for Colorado—a state so richly endowed with the bounties of nature? No, most assuredly not. Let us become once more the healthy state we were meant to be and this through our own efforts.

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- ⁴Personal Communication from State Boards of Health of Nebraska and Wyoming.
- ⁵Personal Communication from State Boards of Health of Utah and Kansas.
- ⁶Waller, C. E.: Supplement 101, U. S. Public Health Service.
- ⁷State of Colorado, Division of Public Health, The Denver Sewage Problem, A Sanitary Survey, page 7.
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ABSTRACT OF DISCUSSION

President Madler: The work of Dr. Chapman last year as Chairman of the Committee on Public Health is to be highly commended. He is deserving of the appreciation of each and all of us. I am sure that he will receive the whole-hearted support of the Society in any work he may undertake in the future. Because he can not be in Colorado the coming year, we must lose him as a member of the Committee on Public Health, but I hope his services will again be available after next year.

Paul J. Connor, M.D., Denver: A year ago, when the last meeting of the Medical Society was held in Colorado Springs, I went to Dr. Gerald Webb and asked him to appoint a committee to work with the State Board of Health on this problem. I want to congratulate him upon appointing Dr. Chapman, because I am sure you never, since you have been in the State of Colorado, have heard a paper that has been so thoroughly worked out.

Dr. Madler, if all the committees that you might appoint will work like Dr. Chapman, I will assure you that we will have the best Medical Society in the United States.

I have a little pamphlet here from The New Republic, of July 11, 1934, which shows that throughout the United States this information is gaining ground. One paragraph here says:

"For the painful truth is that Colorado's health record is a shockingly bad one, and it is still more painful to confess that this bad record is the fault of her own citizens.

"Colorado has an extraordinarily high incidence of so-called filth diseases, and there is the best reason to believe that this is because nearly all of her chief cities refuse to install proper sewage disposal plants."

I attended the American Medical Association annual session in Cleveland and I talked to three pediatricians that I know,—one the Professor of Pediatrics at the University of Texas and one a pediatrician from Cleveland and one from Toledo. Those three men informed me, finding out that I happened to be connected with the State Board of Health, that it was a shame to have such a condition in Colorado. They had informed all of their patients, mothers with children, to stay out of Colorado.

One pediatrician who visited Colorado drank bottled water while here, took the best milk he could get, and still he, his wife and three children came very near dying here with intestinal disease.

I have been in Colorado fourteen years next month. The first five years of my practice I treated thirty-five cases of amebic dysentery, and since then my associate and I have had over 100 cases. I was told not once but repeatedly that those cases were not amebic dysentery, and that we did not have it in Colorado. We all know that the live ameba is digested when eaten, but the cyst is not digested. We know, and the State Board of Health knows, that washing of vegetables does not clean those vegetables. Any mother who picks up these contaminated vegetables contaminates her hands and thereby contaminates her baby.

Ever since I have known anything about Colorado I have been told that the water gets bad here in the fall. That is not the question. We have as good a water supply as there is in the world, especially in Denver, I know. It is carefully guarded. No one has ever traced anything, but we do know that in the latter part of August and in September, when we have these intestinal upsets, our vegetables are coming in from Colorado-grown produce.

I have had many people ask me, "Where can we get vegetables?" I know of but one place,—at Granby, during the summer, and near Littleton on the Platte River before the Littleton sewage hits the Platte River.

This is a terrible thing. I dare say there is not a man in here from around Denver who hasn't had some diarrhea this summer, and we still go on, and on, and on.

My idea of the practice of medicine is, the more you educate the public, the more good practice you get.

Leo W. Bortree, M.D., Colorado Springs: This paper of Dr. Chapman's is of recognized value to all of you, but its value will be essentially nil if the information stays within the walls of this room. There is just one thing to be done by every member of the Colorado State Medical Society. If our record is to be improved, each and every one of us must make of ourselves a

broadcasting station telling the truth about the sanitary conditions in Colorado.

You won't have to talk to more than four mothers of small children and explain the rudiments of this situation or show them this map of Colorado before you have two, three, or even four actively interested citizens, anxious to improve our sewage disposal system.

The doctors aren't going to do this. The State Board of Health isn't going to do it, but the citizens are. Get your Parent-Teacher Associations and your woman's clubs interested. When you go home get your Public Policy Committee of your County Society to appoint speakers to these clubs, show them the map which was printed in the January issue of "Colorado Medicine" and it won't be long before your grocers and your other merchants begin to ask you to let up, that you are hurting their business, and after their pocketbooks have been hurt a little bit more, they will be willing to get out and work for sewage disposal plants.

That is what is happening in Colorado Springs. The merchants are complaining that their pocketbooks are being hurt. They are willing now to join with the other citizens and prepare to have a sewage disposal plant for Colorado Springs.

This article in The New Republic has hurt the feelings of the tourist attractions, and they are beginning to be interested.

Let us broadcast Dr. Chapman's information. All you need is a general idea and those maps, and our patients will do the rest.

W. C. Howell, M.D., Colorado Springs: We have a unique situation here in Colorado Springs. To illustrate the point that a program should be a real program, it should be thorough, I will tell you a few of the facts as they exist here today.

We have a water supply that is almost above criticism, yet we treat our water with chlorine, do what we can to make it pure, and it is about as pure as we can get it. But we have one terrific fight by the citizens of the town against our water,—the finest, purest you can find almost anywhere. What are they fighting? They are fighting the chlorination of water. Why are they fighting it? Because so many people here in the city are being upset, having gastrointestinal attacks in large numbers, and they attribute it to the water. They say, commonly, that we put chlorine in the water to an extent that is harmful. They say the water upsets them, that they can tell the day we start putting it in. Some of them can tell a couple of weeks before you put it in! They taste it or smell it a couple of weeks before it is introduced into the system. That is almost a fact, in their minds.

We get our vegetables from various and sundry sources and they are contaminated vegetables in many instances, despite what we do within our immediate confines and within our reach to prevent the irrigation of vegetables with contaminated water.

Various quacks in the town fan the flame for us and tell the people daily that our chlorinated water is actually harmful, that it doesn't prevent trouble—that it causes trouble,—and not one of these quacks will admit that we are eating contaminated fruits and vegetables. Not even the handling of fruits and vegetables after we get them into the stores is what it should be and we have not yet convinced the people of this and of the dangers of stream pollution because we have not done as Dr. Bortree says,—we have not gone out in numbers and force with a plan, to tell the people that the trouble is coming from contaminated vegetables and not from chlorinated water.

TEACHING THE PATIENT TO OBSERVE THE SYMPTOMS OF OVULATION*

CYRUS W. ANDERSON, M.D.
DENVER

Since the publication of my article¹, "Natural Avoidance of Conception," in June, 1933, there have been many articles in the literature concerning the use of "safe periods" or "sterile periods" as a means of avoiding conception. Most of the comment has been favorable but a few failures have been reported, leading to the statement that "inasmuch as these failures have occurred the method should not be relied upon²." It is the purpose of this paper to explain some of these failures and to demonstrate the practicability of teaching patients to observe and to record the symptoms of ovulation.

All of the recent investigators in the field of conception and sterility are pretty well agreed as to the length of the life of the unfertilized ovum (twenty-four to forty-eight hours at the most); also as to the maximum time the sperm is capable of fecundation after its deposit in the female genital tract (forty-eight to seventy-two hours). If, then, the exact time of ovulation can be determined by some simple method, the matter of avoiding conception resolves itself into the simple problem of abstinence from intercourse for a few days before the expected time of ovulation and for two days after ovulation occurs.

These same investigators agree that ovulation usually occurs twelve to sixteen days after the beginning of menstruation, but by some the statement has also been added that it may occur anywhere in the "utero-ovarian" cycle. This statement is very confusing, for the term "utero-ovarian cycle" is objectionable in that it conveys the idea that the uterus plays the important part in the menstrual cycle. If we must connect the names ovary and uterus to designate a cycle let us call it an ovario-uterine cycle. The term "ovario-uterine cycle" designates something entirely different from whatever the

term "utero-ovarian" was supposed to designate, because in the ovario-uterine cycle ovulation always occurs about fourteen days before menstruation. It is true that ovulation may occur anywhere in the expected interval between menstruations, but this is due to the fact that there may be an overlapping of the phases of the menstrual cycle.

To clarify this point let us first review Burns³ classification of the natural of physiologic phases which occur in both the menstrual and pregnancy cycles of all placental animals:

- | | | |
|------------------------|---|--|
| 1. Follicular Phase: | { | Maturation of follicle
Proliferating endometrium
Proestrus and estrus |
| 2. Ovulation Phase: | { | Distention and rupture of follicle and escape of ovum
"Interval" endometrium (Metestrus) |
| 3. Luteal Phase: | { | Corpus luteum development
Glandular endometrium
Pseudopregnancy or pregnancy (Diestrus) |
| 4. Degenerative Phase: | { | Corpus luteum degeneration
Endometrial desquamation
Menstruation or labor |
| 5. Quiescent Phase: | { | Fertile cycle: lactation
Infertile cycle: absent or becomes anestrus
Non-breeding season |

It is easy to remember these phases by the initial letters "F," "O," "L," "D," and "X." Charted graphically, these phases normally follow each other in the twenty-eight-day cycle in rhythmic succession, like this:

F - O - L - D - F - O - L - D

In the twenty-one-day type, instead of a shortening of each phase, in order that each would occur within the twenty-one days, there is an overlapping so that the follicular phase (F) and the menstrual phase (D) are occurring at the same time:

F - O - L - D

F - O - L - D

F - O - L - D

In the fourteen-day type there is so much overlapping that one ovario-uterine cycle is

*Presented before the Medical Society of the City and County of Denver together with the motion picture, "The Physiology of Fertilization in the Human Female," September 4, 1934.

only half completed when the next begins and ovulation and menstruation are taking place simultaneously:

F - O - L - D

F - O - L - D

F - O - L - D

In menstrual cycles longer than twenty-eight days the X phase or quiescent phase occupies a space between cycles, corresponding to the milk phase following pregnancy:

F - O - L - D - X - F - O - L - D

Knaus¹ has repeatedly stated that "irrespective of the length of cycle, ovulation always takes place about fourteen days before the oncoming menstruation." This has proved to be true in every case that I have charted so far.

The graphs shown below in Fig. 2 are examples. In charting these graphs, the symbols in Fig. 1 were chosen for reasons which will be explained.

Here arises the question: When does pregnancy begin? Does it begin with fertilization or with nidation? It is my contention that pregnancy begins at fertilization and that at first all pregnancies are tubal pregnancies. If pregnancy begins with fertilization, any method or device to prevent nidation amounts to abortion, even though we do not like to regard it as such.

A simple method to determine the exact time of ovulation has been the missing link in the successful practice of the safe-period method of avoiding fertilization. The vast majority of my patients have been able after two or three months to recognize and record the symptoms of ovulation. If these symptoms were psychological—in other words, if these patients were having ovulation symptoms merely because they were told that during a certain week they should have them—it does not seem possible that the

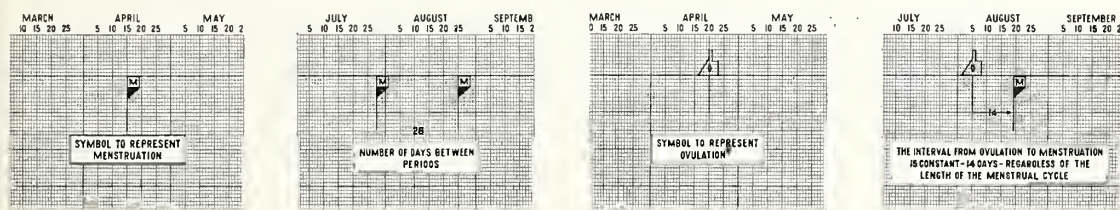


Fig. 1. *The base line represents the actual days of fertility. The diagonal line represents a rising degree of fertility reaching its height on the day of ovulation. The two-day jog following this peak represents the maximum length of life of the unfertilized ovum.

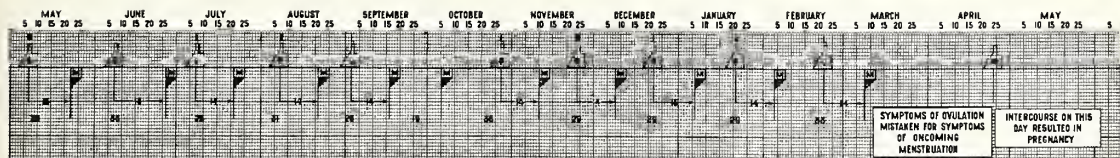


Fig. 2. The ovulations represented in dotted lines in the months of May and October of the lowest chart were not reported by the patient. Reason: They were not noticed because ovulation and menstruation were occurring simultaneously.

It is obvious that the more regular the menstrual cycle the less chance there is of failure of the method. If all the cycles were regular there would be no failures, as it has been shown that for impregnation of the uterus to take place there must first be fertilization and then nidation, and for nidation to take place there must be preparation of endometrium first by follicular hormone stimulation and later by luteal hormone stimulation to produce the so-called pregravid endometrium.

patients with irregular cycles could guess accurately just when these symptoms should occur and could predict the time of menstruation definitely two weeks ahead.

Failures

If all ovulations were reported, all failures could be explained.

The human body is not a machine and does not work with mechanical precision. After studying the physiology involved it is marvelous to find with what regularity the processes of ovulation and menstruation oc-

cur, governed as they are by the hormones of the pituitary, "the motor of ovarian function." Other glands of internal secretion, particularly the thyroid and adrenals, doubtless may alter the regularity of the function of the anterior pituitary hormones.

Nervous and emotional conditions brought about by grief, excitement, or fear have been shown to alter menstrual regularity and they doubtless affect ovulation. In some of the lower animals, particularly the rabbit, ovulation does not take place without the stimulus of intercourse, after which it occurs in a very few hours. In the human, intercourse is not necessary to bring about the phenomenon but in my opinion will hasten the process somewhat, especially if contraceptives are not used. This perhaps accounts for one failure I am reporting.

Mrs. H. gave a history of having a cycle of thirty days previous to her first pregnancy. After delivery, menstruation was again established within ninety days and she had two periods at thirty-day intervals. She was able to recognize ovulation. She was given a thirty-day type chart. She had intercourse on the tenth day following the beginning of menstruation, which is the last day of the postmenstrual sterile period for thirty-day type cycles. She recognized ovulation within seventy-two hours after intercourse and promptly became pregnant, in spite of the fact that she had taken a cleansing douche following the intercourse.

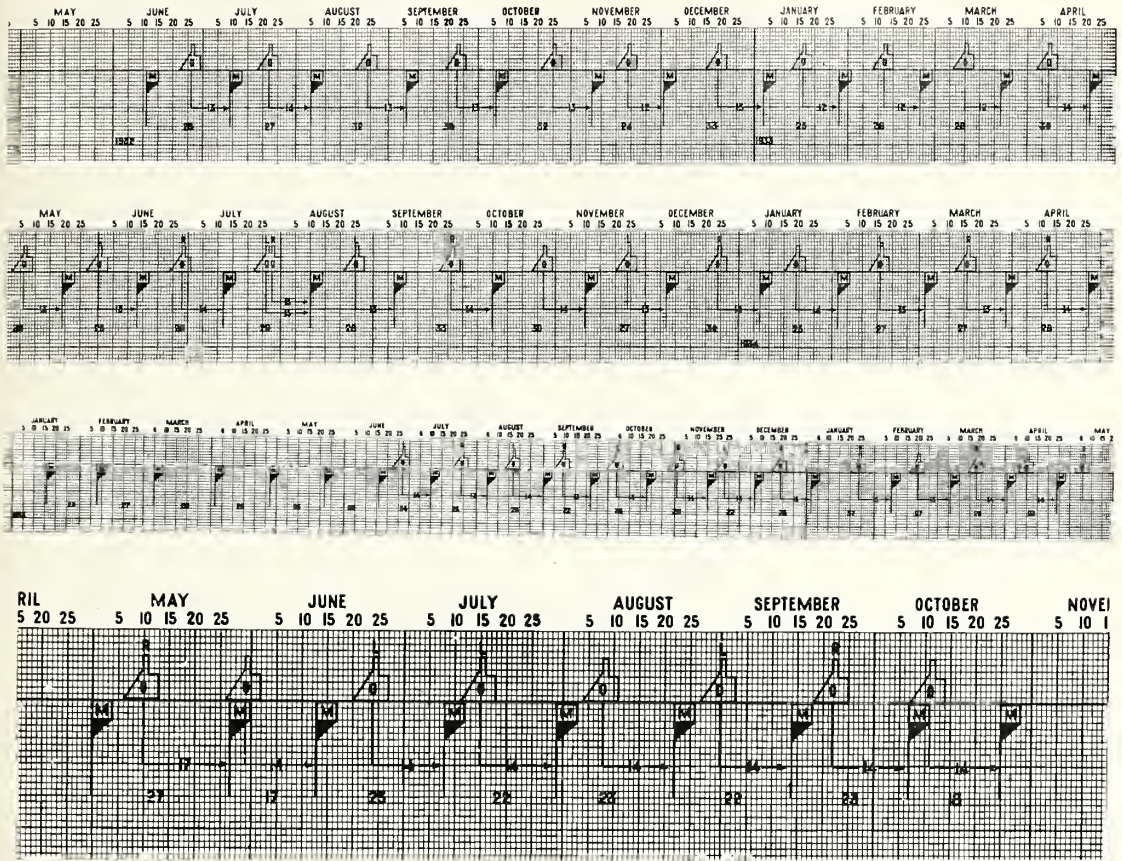
Another case which cannot be held against the method as a failure, but which adds evidence as to the stimulating effect of intercourse on ovulation, is as follows: Mrs. M. had been following the method for eight months and was recognizing ovulation. Her periods had been so regular at twenty-eight and twenty-nine days that she, a nurse, thought a great deal more time was being allowed to the fertile period than was necessary, so she took it upon herself to shorten this period to the theoretical five days. Ovulation occurred a couple of days early and she became pregnant. She frankly admitted that the method was not to blame but that she had overstepped the bounds set forth in the chart.

There has been one frank failure for which I take the blame on the ground of having failed to take a sufficient history, and of having allowed the patient to start right out on the method without sufficient study of the case. Mrs. J., married one year, gave a history of a fairly regular thirty-day cycle. She was not familiar with the symptoms of ovulation but claims to have followed the chart. She did not menstruate after starting the method. There is the possibility that she may have been pregnant at the time she obtained the chart, but she was delivered somewhat past the scheduled time by another doctor. I believe a delayed ovulation was the cause of the pregnancy.

The only other failure that has come to my attention occurred in a patient with a very irregular cycle varying from eighteen to thirty-six days. She was adequately warned not to depend on the postmenstrual safe period but to depend only on the premenstrual safe period, after the symptoms of ovulation had been noticed. She had not missed an ovulation in a year with the exception of one month, when, on account of overlapping of the phases, menstruation and ovulation had occurred at the same time. The following graph is explanatory of the case: (See next page.)

On another occasion she failed to notice the symptoms of ovulation and suspected another short cycle. A couple of weeks later she noticed symptoms similar to those of oncoming menstruation. She had intercourse on that day. The symptoms were probably those of ovulation instead of menstruation. Cases similar to this account for the fact that heretofore the days immediately preceding menstruation were considered the most fertile days.

The most frequent criticism of my work has been a remark that "if normal ovulation caused symptoms, surely someone would have described them before now." Midmenstrual pain (abnormal) has been reported many times in the literature with many (sometimes absurd) explanations as to the cause. Palmer³, in 1892, was probably the first to guess the etiology of intermenstrual pain. He considered it due to an oöphoritis



or perioöphoritis which hindered the rupture of the graafian follicle. Frequently laparotomies have been performed for supposed acute appendicitis and only a chronic appendix together with a freshly ruptured ovarian follicle in the right ovary found.

The symptoms of normal ovulation are usually very mild, and most women attribute to gas or indigestion the associated discomfort, which in many cases is quickly relieved supposedly by some pet home remedy. To teach a patient to recognize the symptoms of ovulation it is not sufficient to merely ask her to look for the pain between periods. A definite procedure must be followed or at least half the women will be unsuccessful in finding the symptoms. After finding the symptoms all admit that they have had them since puberty and have invariably attributed them to some other cause, usually gas or indigestion. Perhaps the reason that these symptoms have been overlooked for so long a time lies in the fact that the referred pain area for the ovary is rather high in the abdomen, about the level of the umbili-

cus. Remember that the ovary gets its nerve supply from the tenth dorsal nerve.

How to Teach the Patient to Recognize the Symptoms of Ovulation

To facilitate the finding of the symptoms of ovulation, the "ovulation time table" has been invented. Simple and self-explanatory as this device is, it is insufficient merely to hand the patient the time table and tell her to "take it home and use it." Some women learn more rapidly than others but generally at least two or three visits to the physician's office are necessary. The following procedure is advocated:

- (1) Get as much history as possible concerning the menstrual cycle, especially with regard to irregularities.

- (2) Emphasize the importance of keeping an accurate record of menstruation to determine the individual cycle.

- (3) Explain the physiology of ovulation to the patient and describe the symptoms, as follows: The symptoms, to begin with, are very much like the discomfort arising from gas in the intestines. The discomfort

is first felt rather high in the abdomen, about the level of the umbilicus and one side or the other according to which ovary is ovulating. There is slight tenderness to pressure. This is followed by a slight bearing down sensation similar to menstrual cramps. Some women have a sharp, piercing sensation lasting only a few seconds, followed by a slight tenderness low down in the abdomen. Many women have the sensation as if they were "going to menstruate in the middle of the month."

Variations of the severity of the symptoms are the rule even in the same patient from month to month. Occasionally, when the symptoms are severe, the multiparous woman tells of "feeling much like the first time she sat on a toilet after her babies were born." Some women experience a slight headache, some a soreness in the breasts, and many say there is a slight increase in the vaginal secretion so as to give a slight discharge during that day. Many say they know the process has been completed when they pass a plug of mucus a day or two later, and that they are able to predict the time of the oncoming menstruation from the time of passing this "mucus plug." In a very few cases there is slight bleeding.

(4) Remembering that ovulation may come a few days earlier or later than on the exact day indicated by the cycle card, the physician should outline or check about five days (two days before and two days after the expected time for ovulation) and request the patient to keep a written record of every symptom occurring during these days regardless of whether or not she thinks it has any bearing whatsoever on the case. For example: 7/30/'33 "cramp in right side of abdomen lasted only few seconds, think it was gas;" 7/31/'33 "slight headache;" 8/1/'33 "nothing noticed;" 8/2/'33 "passed small plug of mucus."

(5) The patient is asked to keep in her own code a record of all events pertaining to the cycle, in the blank spaces provided to the right of each month. The following code is suggested: cross (X), indicating the number of days occupied by menstruation; dot (.), indicating intercourse

on that particular date; O, indicating suspected ovulation, or Ø, ovulation in the right ovary, and ⊙, in the left ovary, as the case may be; and dash (-), meaning passed plug of mucus.

(6) The physician may or may not instruct the patient with both the cycle card and the date card at this time. In some cases it may be advisable, in other cases he may wish to have her return each month for three or four months, in order that he may more accurately determine which is the best cycle card for her to use, and also assist her in finding the symptoms of ovulation.

The finding of the symptoms of ovulation not only greatly increases the efficiency of the device but also increases the number of days in the cycle which may be considered as sterile, because there is very little danger of pregnancy occurring from intercourse if a period of forty-eight hours has elapsed since ovulation took place. After a few months many patients are positive of the symptoms of ovulation, and these patients may begin their premenstrual sterile period forty-eight hours after the symptoms have been noticed.

It has been my privilege to follow more than one hundred cases using this method, eighty-five of which have been in my own practice. I have reported all of the failures (four) which have come to my attention. One of these should not be charged against the method. When patients become thoroughly acquainted with the symptoms of ovulation and learn to allow for variations in their cycles the percentage of failures should be even less than 3 per cent.

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EMBRYONAL CARCINOMA OF THE TESTICLE

REPORT OF TWO CASES—ONE ELEVEN YEAR CURE

LANNING E. LIKES, M.D.

LAMAR

In the works of St. Donat, we find the first attempt to study malignancy of the testicle. In 1696 he established a teratomatous origin of these tumors in describing a rudimentary skull and pigmented ocular cups. Prochaska in 1803 describes fetal units in a testicular tumor and a few years later Andre de Peronne made a similar contribution. Johnson's investigations established the tridermal character of these growths and Carling suggested that the rete-testis was the probable beginning of these new growths.

In a study of the literature previous to 1921, sarcoma was the commonly reported malignant tumor of the testis.

There still remains much confusion in the pathogenesis and classification of these tumors; however, the work of Ewing, Schultz and Eisendrath in this country, Chevassu and his followers abroad, have done much to improve the classification.

Ewing divides testicular tumors into three groups: (1) Those in which the tissues arranged to suggest adult organs are highly differentiated, relatively benign and slow growing teratomas; (2) an intermediate group including the less differentiated, mixed or teratoid; (3) the most common and malignant tumor of the testicle, which he calls embryonal carcinoma, of large round cell type, epithelial in its origin. The latter was the tumor which was formerly called sarcoma.

Chevassu and his followers describe two main varieties. The most common variety he regards as carcinoma, which he designates seminoma since it has its origin in the epithelial cells lining the seminiferous tubules, while Ewing regards it as a one-sided development and not derived from the adult spermatoblasts. The second variety, not so common, comprises a group the common characteristic of which is that they contain products or elements of all three embryonic layers—hence the designation, embryoma. Under this generic term, Chevassu includes

mixed tumors and also the more complex and more highly differentiated teratoma.

Schultz and Eisendrath suggest the name spermatocytoma to indicate their origin as perhaps better than seminoma of Chevassu. It will be less confusing if we will remember that the embryonal carcinoma of Ewing corresponds to the seminoma of Chevassu and spermatocytoma of Eisendrath and Schultz.

Etiology

Since these tumors appear most frequently during the period of greatest sexual activity, this may have some relation to their origin. Heredity does not play a part. Authorities differ as to whether trauma plays an important part; however, in one of my cases it seemed to be at least the exciting, if not the actual, cause.

The more frequent occurrence of carcinoma in undescended testis is mentioned in support of the traumatic factor. It is said that the inguinal testis is subjected to frequent bruising against the pubis bone and compression by the contraction of the anterior abdominal wall muscles.

Weiser contends that the inguinal testicle is less exposed to trauma than the scrotal organ. It is, however, a fact that the inguinal testes are more frequently the seat of carcinoma than the scrotal ones.

Hinman finds 649 cases of testicular tumor reported, but only 12.2 per cent of these in undescended testicle. Of 3,259 cases of undescended testicles reviewed by him there are only six tumors (0.17 per cent) out of 182,729 general male hospital admissions. The incidence of testicular tumor was 116 or 0.063 per cent; of these, three were in undescended testes, that is, one in about 60,000 admissions. Hinman concluded that testicular tumors are relatively more common in undescended than in normally placed organs.

Rice agrees with him in the following statement: "The relative rate of incidence of malignant tumors is higher in the undescended than in the normally placed tes-

ticle, despite the rarity of the former. The proportion is about one of the former to fifteen of the latter."

Ewing, Wilms, Ribbert, Pick and others have pointed out the importance of developmental disturbances of the testicle as the origin of cancer. Some investigators hold that the increased frequency of cancer in the undescended testicle support this theory. Bland Sutton mentions in 1923 that thirty-five cases of malignancy in both testicles were so far reported. Trauma may act as a contributing factor by activating the latent proliferating qualities of congenitally pathologic cells.

Kelley and Heuper have the following to say in regard to the origin: "Carcinomas usually start in the rete-testis in the region of the junction of the upper part of the epididymis with the back of the testis. There exists two theories concerning the actual origin of testicular carcinomas. Langhans suspected, and later Ewing, Wilms and others considered it a well established fact that testicular carcinomas are exclusively products of a one-sided development of teratoids. Ewing claims that a careful examination of the tumor frequently shows at times only very scanty traces of other tissues as cartilage, bone, nests of entodermal epithelium, et cetera, revealing the teratoid origin of the tumor (Morris, Hinman, Gibson and Kautzmann). Ewing supports his contention with the following reasons:

1. The characterisitic structure of embryonal carcinomas is sometimes also observed in carcinomas of definitely teratoid origin.

2. He observed in a very early embryonal carcinoma minute traces of other tissues.

3. The rapid growth of the malignant embryonal elements gives unusually favorable opportunity for the overgrowth and suppression of other tissue elements.

4. The only known benign tumor of the adult spermatoblasts is very different from the embryonal carcinoma.

5. Against the origin of the embryonal carcinomas from spermatoblasts incited to growth by the presence of a teratoma the occurrence of extratesticular embryonal car-

cinomas or ovarian teratomas (Zeitlin) has to be noted.

6. He could not substantiate the findings of Gordon Bell who reported the observation of transitional stages between normal spermatoblasts into tumor cells as he was unable to rule out collateral hyperblasts and invasion of the tubules by tumor cells.

7. There does not exist an actual difference between the original of embryonal carcinomas from primordial isolated blastomeric cells and primitive sex cells, as both are omnipotent.

Chevassu, Debarnardi, Schultz and Eisendrath, Gordon Bell, Frank, Geist and others, however, claim that a certain type of carcinoma which Chevassu named seminoma, Ewing called embryonal carcinoma, Schultz and Eisendrath termed spermatocytoma, originates from the adult spermatoblasts of the testicular tubules. They assert that the tridermoid character of embryonal carcinomas is not evident in the majority of the cases, that these tumors may occur associated with teratomas and that the difference in the age of incidence of seminomas and teratoid carcinomas, the former being more frequent in the third decade, while the latter are more frequently found in persons who are in their fourth decade, but also occur in babies as well as in old persons, point to a difference in character of these two new growths. Ewing admits the possibility that these clear celled carcinomas tending to form alveoli without definite embryonal character and without lymphoid stroma may belong in a separate class and originate from adult tubular epithelium, as claimed by Chevassu. He concludes that in no other organ has the principle of overgrowth of one element of a teratoma been proved to be predominant as in those of the testicle, and while it is possible to carry this principle too far, the data seems to demonstrate its great importance in the interpretation of tumors of this region. Ewing does not completely deny, according to this reference, the origin of a certain type of testicular carcinoma from the tubular epithelium. Seminomas may originate, judging by an evaluation of the existing observations, from teratoids as well as from the

testicular epithelium. But the latter tissue is apparently less frequently the source of malignancy of the testis. There seems to us not sufficient evidence brought forward to deny the spermatoblasts any malignant blastogenic properties. Kaufmann considers also the origin of the testicular carcinomas from adenomas and germinative parts of Wolff's body.

In order to have a thorough understanding of the extension of malignant growths of the testicle we must be familiar with the lymphatic drainage of the testes. We owe our knowledge of the lymphatic drainage of this structure chiefly to Most, Cuneo and Jamieson, and Dobson. All three descriptions are in agreement that the lymph-channels which drain the testis follow the course of the spermatic vessels through the inguinal canal and along the brim of the pelvis, and that they empty directly into a group of nodes around the aorta at the juncture of the right spermatic vein and inferior vena cava and of the left spermatic and left renal veins. The lymph nodes in the femoral or inguinal region do not receive lymph from the testis proper, but they drain the lymph from the scrotum. Most and Cuneo also found, behind the abdominal aorta, one or two large nodes directly connected with those at the sides of the vessel and through which the dyed lymph from the testis passed to other nodes in close proximity to the receptaculum chyli. This distribution explains the invasion of the thoracic duct itself and of the so-called pilot node or nodes above the inner third of the left clavicle which sometimes occurs in tumors of the testis.

Symptoms

Subjective symptoms in malignant tumors of the testicle are frequently very few. About half of the patients complain of some pain; it is usually more of a dragging, tired feeling. One of my patients emphasized the fact that he had absolutely no pain, tenderness, or impairment of function. He consulted me on account of the extreme size of the testicle. The secondary growth may be attended by symptoms characteristic of their location, and it is interesting to note

that the primary growth is frequently overshadowed by the secondary metastasis.

Diagnosis

The tumor is usually firm and the cord thickened and much larger than normal, but this is also true in syphilis and hematocele. The scrotum contains an enlarged testicle (one of my cases measured 35 by 50 mm.), rather smooth and firm and does not transmit light. However, occasionally hydrocele accompanies malignancy of the testicle. Malignancy of this organ has to be differentiated from tuberculosis, hematocele, and syphilis. In tuberculosis the general history will usually establish a correct diagnosis; the growth starts in the epididymis and extends along the vas as small nodules, tends to break down early and form sinuses, and is usually a manifestation of a generalized genital tuberculosis. Tubercle bacilli may be found in the urine. Investigation will frequently show involvement of prostate and seminal vesicles.

Hematocele usually follows trauma. The tumor cannot be trans-illuminated and is boggy; the scrotal structures on the involved side cannot be identified. At times an incision is necessary to determine the character of the tumor.

In syphilis a Wassermann test alone is not sufficient, as this disease and malignancy have been reported to exist together. Vigorous anti-leucic treatment for a short time should aid greatly in making a diagnosis.

Benign growths are extremely rare. The tumor would have a slow growth, no glandular involvement and not be detrimental to general health. Microscopic examination would establish its nature.

Treatment

There are four procedures: (1) Simple castration; (2) the radical operation of Hinman; (3) deep Roentgen ray and radium; (4) Coley's mixed vaccine.

Simple castration with high cord excision without demonstrable glandular involvement is followed by a small percentage of cures probably not greater than 10 per cent.

The radical operation of Hinman I do not recommend. The increased percentage of cures, if any, would undoubtedly be offset

by the greater operative mortality. This view is held by many surgeons.

I think very few operators attach any value to Coley's serum. In his article, "Malignant diseases of the Testicle," he writes: "Long continued systemic treatment with the mixed toxins of erysipelas and bacillus prodigiosus, combined with thorough radiation of the abdomen and supraclavicular glands by radium or x-rays, offers a far better hope of a permanent cure than any form of operative treatment alone."

Desjardins in his paper entitled "Radiotherapy for Tumors of the Testis," says: "A comparison of surgery and radio therapy cannot be made, because they are used in different groups of patients. All that can be said for the present is that in a small number of cases surgical removal of the tumor results in a permanent cure; that radiotherapy is a valuable method of treating inoperable cases or cases in which metastasis has occurred in spite of operation, and that the most common tumor of the testis, the embryonal carcinoma, is peculiarly and characteristically vulnerable to irradiation, thus providing a means of differentiating such tumors from other new growths affecting the testis."

CASE 1

Mr. John W., Eads, Colorado, aged 44, rancher, could not give details of his family history, but there is no history of tuberculosis, cancer or insanity. His chief complaint was of an enlargement in the right testicle. He did not consult me for pain or tenderness as he had absolutely no discomfort except from size. It was very large, measuring 50 mm. by 35 mm. He emphasized the fact that it was simply from the size and from the difficulty which he had with the fit of his clothes that he consulted me.

He gives the following past history: About two years ago while driving cattle, his pony stumbled and he was thrown violently forward on the horn of the saddle. Following this, the right testicle was badly swollen and exquisitely tender. This lasted for several days, gradually subsided, and he did not notice any further trouble except a little hard place at the lower part of the testicle for about a year.

At this time, two years after the injury, it began to enlarge, at first slowly, then the last nine months grew very fast. He had no pain, tenderness, or impairment of function.

Upon physical examination, one could not distinguish the testicle from the epididymis. The mass did not transmit light. Wassermann was negative. Chest x-ray revealed no pathology. Left scrotal contents, normal. No glands could be felt in the inguinal region.

On February 13, 1922, the right testicle and cord were removed with adjacent lymphatic structures.

The following were the pathological findings: Grossly, it was a very hard, extremely large, firm nodular right testicle. The cord structures were quite indurated. Microscopic: Tissue shows malignancy and is a new growth, according to Chevassu, originating in the sperm cells of testis often called clinically sarcoma, but it is epithelial in origin, hence a carcinoma of large round cells, medullary variety. Some late investigators have classed this tumor as a spermatocytoma.

Postoperative history: This patient had a splendid convalescence and I urged him strongly after the pathological report to consult Dr. Withers of Denver for radium and x-ray treatment. On February 8, 1924, I received a letter from this patient, who had moved to California; he stated that he had lost over fifty pounds since he had been operated upon. In a letter dated February 25, 1924, he stated that he was still losing weight and having considerable stomach trouble.

I lost track of this patient, but undoubtedly he died from secondary metastasis.

CASE 2

Mr. Thomas E., Campo, Colorado, aged 63, preacher, noticed that a testicle began to enlarge in August, 1922. Occasionally there was some pain and it had been growing slowly ever since. It measured 25 mm. by 32 mm. and was quite firm and nodular. It contained a small amount of fluid. One could not separate testicle from epididymis. The mass did not transmit light. Wassermann, negative. X-ray examination of chest, negative. No clinical evidence of lymphatic glandular enlargement. Right side of scrotum and its contents, normal.

This patient had practically all the diseases common to childhood without any complications. He has not had any serious illness. A mild attack of "flu" in 1918 was uncomplicated.

On July 13, 1923, under 1 per cent novocaine adrenalin anesthetic, the left testicle and the cord with adjacent lymphatic structures was removed, with the following pathological findings: Grossly, the testicle was firm, nodular, and there was a small amount of fluid. Microscopic: Tissue shows malignancy, a large round epithelial cell tumor corresponding to the epithelial cells lining the seminiferous tubules. These growths are often clinically called large round cell sarcoma, but Ewing and others agree in its epithelial origin and often embryonic in the beginning.

Postoperative history: Uneventful; he had no complications and left the hospital in ten days. I urged him to consult Dr. Withers of Denver for radium and x-ray treatment.

Just recently I heard from Dr. Patterson, eleven years after operation, that this patient was in excellent health with absolutely no signs of secondary involvement.

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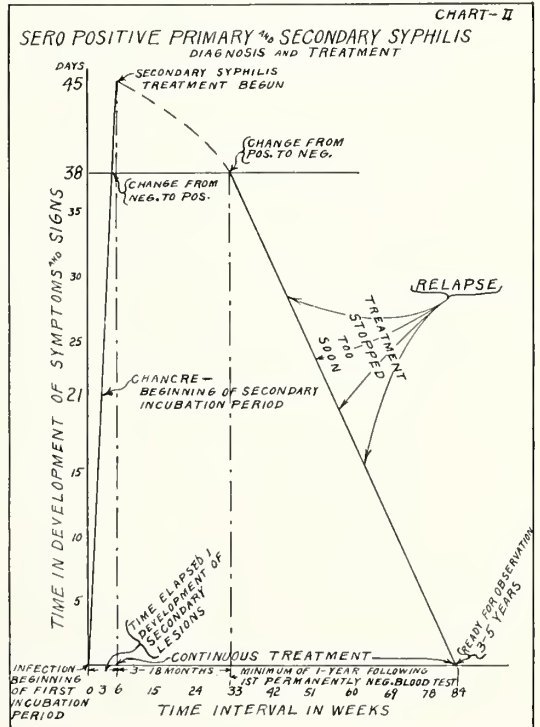
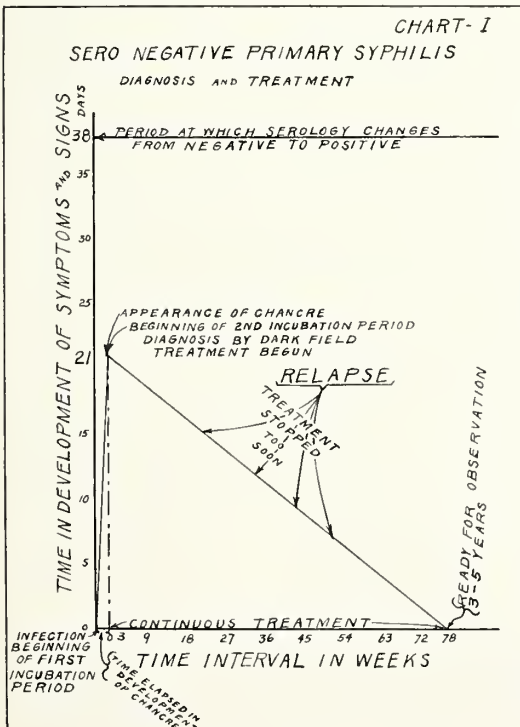
EARLY SYPHILIS—DIAGNOSIS AND TREATMENT GRAPHICALLY REPRESENTED

HARRY L. FRIEDMAN, M.D.
DENVER

In a recent article¹, in *Colorado Medicine*, I discussed the importance of early syphilis, both from the standpoint of "cure," as well as from that of infectiousness, which is mainly from the public health standpoint. Since then, several colleagues commented on the advisability and desirability of having this phase of medicine concisely in chart form. I further wish to make cognizance of the fact that the idea of these charts suggested itself to me from the numerous extemporaneous

drawings which Dr. Louis Chargin of New York City used in illustrating his teaching of syphilis at the New York Department of Health, in cooperation with the Postgraduate Medical School of Columbia University, Department of Dermatology.

Chart I represents the sero-negative stage of syphilis. The only clinical sign at this stage is the chancre, which usually appears about three weeks after infection, although variations of from ten days to three months



is usually given in text books^{2,3,4}. With the beginning of the chancre, the first incubation period ends and the second incubation period begins. At this stage the diagnosis may be made by confrontation or dark field, but for practical purposes only the latter is to be considered.

As soon as the diagnosis is made, treatment is instituted and followed as indicated in Table I.

Chart II is a continuation of the previous chart and illustrates two types of early syphilis: one, the seropositive primary stage; and two, the secondary stage. With the beginning of secondary lesions, the second incubation period has ended. Treatment at this stage is not instituted unless a positive dark field, from the primary or secondary sores, or an unequivocal positive blood sero-

TABLE I—SERO NEGATIVE PRIMARY SYPHILIS

Time in Weeks	Treatment	Time in Weeks	Treatment	Time in Weeks	Treatment	Time in Weeks	Treatment
1	Neo. 0.45 Neo. 0.5 Neo. 0.6	18-21	Neo. 0.6	42-49	Bi. 0.15 * ** ecIII	70-73	Bi. 0.15 Neo. 0.6
2	Neo. 0.6	22-25	Bi. 0.15 Neo. 0.6	50-53	Neo. 0.6	74-81	Bi. 0.15 * ** ecV
3	Bi. 0.1 Neo 0.6	26-33	Bi. 0.15 * ecII	54-57	Bi. 0.15 Neo. 0.6		
4- 8	Bi. 0.15 Neo. 0.6	34-37	Neo. 0.6	58-65	Bi. 0.15 * ecIV	Ready for observation 3-5 years	
9-17	Bi. 0.15 * ecI	38-41	Bi. 0.15 Neo. 0.6	66-69	Neo. 0.6		

TABLE II—SERO POSITIVE PRIMARY SYPHILIS

Time in Weeks	Treatment	Time in Weeks	Treatment	Time in Weeks	Treatment	Time in Weeks	Treatment
1	Neo. 0.45 Neo. 0.5 Neo. 0.6	18-21	Neo. 0.6	42-49	Bi. 0.15 * ** ecIII	70-73	Bi. 0.15 Neo. 0.6
2	Neo. 0.6	22-27	Bi. 0.15 Neo. 0.6	50-53	Neo. 0.6	74-81	Bi. 0.15 * ** ecV
3	Bi. 0.1 Neo. 0.6	28-33	Bi. 0.15 * ecII	54-57	Bi. 0.15 Neo. 0.6		
4- 8	Bi. 0.15 Neo. 0.6	34-37	Neo. 0.6	58-65	Bi. 0.15 * ecIV	Ready for observation 3-5 years.	
9-17	Bi. 0.15 * ecI	38-41	Bi. 0.15 Neo. 0.6	66-69	Neo. 0.6		

TABLE III—TREATMENT OF SECONDARY SYPHILIS

Time in Weeks	Treatment	Time in Weeks	Treatment	Time in Weeks	Treatment	Time in Weeks	Treatment
1	Bi. 0.1 Bi. 0.15	15-18	Neo. 0.6	47-50	Neo. 0.6	79-82	Neo. 0.6
2	Neo. 0.3 Bi. 0.15	19-24	Neo. 0.6 Bi. 0.15	51-54	Neo. 0.6 Bi. 0.15	83-86	Neo. 0.6 Bi. 0.15
3	Neo. 0.4 Bi. 0.15	25-30	Bi. 0.15 * ecII	55-62	Bi. 0.15 * ecIV	87-94	Bi. 0.15 * ** ecVi
4	Neo. 0.5 Bi. 0.15	31-34	Neo. 0.6	63-66	Neo. 0.6	Ready for observation 3-5 years.	
5-11	Neo. 0.6 Bi. 0.15	35-38	Neo. 0.6 Bi. 0.15	67-70	Neo. 0.6 Bi. 0.15		
12-14	Bi. 0.15 * ecI	39-46	Bi. 0.15 * ** ecIII	71-78	Bi. 0.15 * ecV		

N. B. Continue treatment for one year following the first of the permanently negative Blood Serologic Tests.
*Blood Serology; **Spinal Fluid Serology; Cell Count; Globulin; Colloidal Gold. ecI End Course I, ecII End Course II, etc.

logic test, is demonstrated⁵. Therapy may be followed as outlined in Tables II and III.

While therapy should preferably be given by the "continuous method of treatment⁶," and while it usually can be given routinely and according to a set plan in these types of cases, yet it must also be given with intelligence and regard to the patient. There are some patients who cannot stand a continuous method of therapy with a vasculotoxic drug like arsphenamine, neoarsphenamine or other arsenical, and with a nephrotoxic drug like bismuth or mercury. In these type of cases, one should not treat with both drugs in the same course, and it may even be necessary to interrupt treatment by rest periods. Treatment should, however, be prolonged for at least eighteen months if the continuous method is carried out and for a comparatively longer time if the rest period method is resorted to.

In the seronegative type of case, the blood serology was negative from the start and may continue to be negative (with therapy) until a "cure" is established. But in the seropositive primary and secondary types, one may use the blood serologic test as a guide, and continue treatment for at least one year after the first of the permanently negative blood tests.

Relapses in any form, such as return of open lesions in the skin or mucous membranes or both, gummas or neurosyphilis, may result if therapy is stopped before the supposed "curative" point is reached as shown on the chart by the seventy-eighth and eighty-fourth week, respectively.

After the third course of therapy, a spinal fluid examination should be made and again at the end of treatment. If negative at both occasions and if no other symptoms or signs attributable to the disease in question manifested themselves during the length of therapy, the patient may be considered as cured⁷.

Even after such plans of therapy have been carried out, the patient should be under the physician's care for about five years.

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PUBLIC HEALTH NOTES

Maternal Deaths

The Children's Bureau of the United States Department of Labor has just issued an exhaustive report on the sources of maternal mortality based on a study made in fifteen widely scattered states. This Bulletin (number 221), which may be secured from the Government printing office at Washington, should be in the hands of every general practitioner.

The maternal death rate in this country is generally admitted as abnormally high and in spite of the advance in obstetrical training, the rate has changed very little during the past decade. When we realize that 16,000 deaths in the United States are assigned annually to diseases and accidents associated with pregnancy and childbirth, the need for united effort throughout the entire medical profession is obvious.

The recommendations made by the advisory committee consisting of Dr. Robert L. DeNormandie, instructor in obstetrics, Harvard Medical School, chairman; Dr. Fred L. Adair, professor of obstetrics and gynecology, University of Chicago; Dr. Rudolph W. Holmes, professor of obstetrics, Northwestern University Medical School, Chicago; Dr. Frank W. Lynch, professor of obstetrics and gynecology, University of California Medical School; Dr. James R. McCord, professor of obstetrics and gynecology, Emory University School of Medicine, Atlanta; Dr. C. Jeff Miller, professor of gynecology, Tulane University, New Orleans; Dr. Otto H. Schwarz, professor of obstetrics and gynecology, Washington University School of Medicine, St. Louis; Dr.

Alice N. Pickett, assistant professor of obstetrics, University of Louisville School of Medicine, Louisville, are given below:

TO THE MEDICAL PROFESSION

- A. Physicians must assume leadership in the field of maternal care by:
 1. Informing the public that the high mortality during pregnancy, delivery, and the postpartum period is due largely to controllable causes.
 2. Recognizing that every mother must have adequate prenatal, delivery, and postpartum care.
 3. Instructing the public as to what constitutes adequate maternal care.
 4. So organizing the available resources of their communities that every mother can receive adequate maternal care.
 5. Warning the public as to the dangers occasioned by abortions, spontaneous or induced.
- B. In order that more accurate information may be secured relative to cause and prevention of maternal deaths:
 1. Physicians should make a greater effort to study by autopsy and other scientific means every maternal and fetal death, for in many cases this is the only means of ascertaining the true cause of death.
 2. Physicians are urged to exercise the greatest possible care in making out maternal and fetal death certificates, so that vital statistics may be more accurate and therefore more valuable.
 3. Bureaus of vital statistics are urged to query maternal and fetal death certificates recording an indefinite cause of death; for example, "Cesarean section" alone.
 4. Medical societies and departments of health in cooperation should investigate each maternal death within a few weeks of the death.
- C. In order that physicians in general may have a better understanding of the fundamentals of obstetric care:
 1. There should be larger and better facilities for clinical training in obstetrics.
 2. Undergraduate students should have a much wider contact with obstetrical patients.
 3. The State Medical Societies, the medical schools, and state departments of health should provide or arrange for postgraduate teaching in the various counties in order to keep the local practitioner in touch with the best obstetric thought and practice.
- D. It is recommended that all physicians practicing obstetrics give particular consideration to:
 1. The importance of good aseptic technic, including the use of rubber gloves and masks that cover nose and mouth.
 2. The danger to mothers from carriers of infection.
 3. The dangers of the use of pituitrin during labor.
 4. The dangers of multiple, forcible, and radical procedures in obstetrics.
 5. The proper indications and contraindications

for various obstetric operations, especially (a) the dangers of major operations in the presence of shock and hemorrhage and (b) the dangers of cesarean section after vaginal manipulations or long labor.

6. The proper selection of anesthetics.
 7. The value of blood transfusions.
 8. The dangers of intrauterine manipulations in cases of infected abortion.
 9. The dangers of abortion or delivery to women suffering from acute diseases, especially infectious diseases.
 10. Knowledge of the symptoms of some of the less common but more serious complications of delivery such as rupture of the uterus.
- E. It is recommended that State Medical Societies working in cooperation with the state departments of health consider the development of some plan by which well-trained regional obstetric consultants may be made available.

TO THE GENERAL PUBLIC

There should be widespread education of the public as to the following:

1. That the high maternal death rate is due largely to controllable causes.
2. That it is necessary for all women to have adequate supervision and medical care during pregnancy, labor, and the postpartum period, such supervision and care to begin early in pregnancy and to be continuous through the postpartum period—
 - (a) In order to safeguard the health of both mother and child.
 - (b) In order especially to control the infections, toxemias and hemorrhages that this study and others have sworn to be real menaces to life.
3. That there is danger of death or serious invalidism following abortions, spontaneous or induced.
4. That the community has a definite responsibility to provide adequate medical and nursing facilities for the care of women during pregnancy, labor, and the postpartum period. This predicates the proper organization of hospitals, outpatient services, and medical and nursing personnel and applies to both home and hospital care. The community should know the standards for hospitals taking obstetric cases that have been drawn up by the American College of Surgeons.
5. That judicious selection of the hospital to be used for maternity care is of the greatest importance when hospitalization is planned.
6. That the better education of those caring for women during this period is essential and should have public support. This includes adequate obstetric training for medical students, postgraduate obstetric training for physicians in practice, to keep them abreast of modern developments, the training of nurses in good maternity care, and the training and supervision of midwives in communities where midwives still practice.
7. That it is important to make careful and intelligent selection of the attendant for maternal care.

BOOK REVIEWS

A Diabetic Manual: For the Mutual Use of Doctor and Patient, by Elliott P. Joslin, M.D. Clinical Professor of Medicine, Harvard Medical School; Medical Director George F. Baker (Clinic for Chronic Diseases at the New England Deaconess Hospital; Consulting Physician, Boston City Hospital, Boston, Mass. Fifth edition Thoroughly Revised. Illustrated. Lea and Febiger, Philadelphia, 1934.

The quality of a book may be measured by the demand for it. This in turn may be measured by the number of editions through which it passes. Doctor Joslin's Diabetic Manual is now in its fifth edition. In this edition the author has preserved his inimitable conversational style in his effort to instruct diabetic patients in matters of practical interest. He has embellished the subject by his inclusion of historical, personal, and illustrative matter. In addition to this didactic procedure, he lays down a philosophy, a line of reasoning—statistically and otherwise—designed to inspire hope and confidence in the mind of the average patient. The book contains some new material, but essentially it is a re-emphasis of the orthodox concept of diabetic management. It would be of value to any intelligent diabetic patient. It ought to be of value to physicians as a guide in the treatment of diabetes.

C. F. KEMPER,

Tuberculosis in the Child and the Adult. A Discussion of Pathologic Anatomy, Pathologic Physiology Immunology, Diagnosis and Treatment. By Francis Marion Pottenger, A.M., M.D., LL.D., F.A.C.P. Clinical Professor of Medicine (Department of Chest) University of Southern California, the School of Medicine; Medical Director, the Pottenger Sanatorium and Clinic for Diseases of the Chest, Monrovia, California. St. Louis: The C. V. Mosby Company. 1934.

This book, Dr. Pottenger's latest work, is a new book written in a new way. From the first chapter of "The Decline in Tuberculosis," to the last chapter of "The Application of Diagnostic and Therapeutic Principles," the classification, paragraphing and phraseology, are somewhat different from anything that has been published upon the subject of tuberculosis.

This work goes into detail at the proper time and place, and there is very little useless information in the entire book. Chapters dealing with Childhood Tuberculosis are written indeed well and leave the reader with no doubt in his mind as to the amount of information at his disposal.

The rest of the volume devoted to Adult Tuberculosis covers in a most interesting and instructive way the many points of Biochemistry, Diagnosis, X-ray of the Chest, and the Treatment of Pulmonary Tuberculosis. The volume on the whole is one which could be well read and appreciated by any physician, be he general practitioner, phthisiologist or roentgenologist.

C. L. LINCOLN.

Hypertension and Nephritis. By Arthur M. Fishberg, M.D. Associate Physician to Beth Israel

Hospital, Associate in Medicine, Mount Sinai Hospital, New York City. Third edition, thoroughly revised. Illustrated with 39 engravings and one colored plate. Philadelphia: Lea and Febiger. 1934. Cloth \$6.50 net.

This volume, the third edition, contains so much valuable information concerning clinical medicine and pathology that it should be owned by every physician. With a few additions this new edition is as comprehensive a survey of a large and difficult subject as could be hoped for.

The classification of renal disease, page 282, which is the outline followed by the author, is well conceived and thoroughly discussed. One should not accept the classification before carefully studying the text and viewing through the author's eyes the obvious difficulties in bringing all cases of nephritis under a certain and separate heading. Otherwise this classification will lose its usefulness and be made to serve only as a guide to therapy not greatly different from a famous quack method of another generation which ran something like this—pain in the elbow, remedy number six, pain in the wrist, remedy number seven.

As our knowledge of the pathological physiology of the kidney increases, classifications become simpler. Many of the subdivisions of large classifications are merely different stages of the same progressive renal lesion, or are used to call by name different combinations that have a common pathological basis.

The reviewer does not have a simpler classification. Suffice it to say that the classification in this excellent book should not be accepted as the final one.

The Essentials of Physical Diagnosis: By Robert W. Buck, M.D., Assistant Professor of Preventive Medicine and Instructor in Physical Diagnosis, Tufts College Medical School; Physician to Boston Dispensary. 259 pages with 21 illustrations. Philadelphia and London: W. B. Saunders Company, 1934. Cloth, \$3.00 net.

This volume will answer satisfactorily the purpose of the author to furnish the student with a handy reference to the principles of physical diagnosis.

W. S. DENNIS.

Alcohol and Man. Edited by Haven Emerson, M.D., De Lamar Institute of Public Health, Columbia University. New York: Macmillan. 1933.

We have here a book which fills a definite need—a book which furnishes the layman with uncolored facts concerning the effects of alcohol on man. It represents in topics the viewpoint of the physiologist, pharmacologist, geneticist, pathologist, clinician, and psychiatrist; it furnishes a discussion of the effects of alcohol on the lower organisms and the single cell. Insurance statistics of this country apparently show a decreasing mortality rate from alcoholism during the era of prohibition.

This volume leaves one with the impression that the therapeutic uses of alcohol are limited to the production of comfort in the aged and those afflicted with chronic diseases and that the problem of alcohol, if taken out of the "galloping" age in which we live, would be one of abuse and moderation. Persistent education is suggested as the remedy for many of our present difficulties.

J. P. HILTON.

The Spastic Child. A Record of Successfully Achieved Muscle Control in Little's Disease. By Marguerite K. Fischel. Introduction by George Gellhorn, M.D. 14 Illustrations, 97 pages. The C. V. Mosby Co.: St. Louis, Missouri. Price \$1.50.

This little book is an essay by a mother regarding her two sons, the unfortunate victims of Little's disease. Though written by a layman, it is a wholesome contribution to medical literature. What the mother writes is so clearly, so honestly, and so accurately given that the reader is carried away through the sympathetic confidence she inspires. After sixteen years of tireless effort of head, heart and hand, she evolves for her son a system of treatment which effected a complete and permanent cure.

She approached the task like a master builder to recoup her son from a physical, social, and mental wreck. The plans were laid to obtain relaxation and coordination in the various muscle groups involved. Speech correction, physiotherapy, mechanical aids, nutritional needs, school work, social and psychological problems required special attention. To read how the mother met and solved each problem is an inspiration.

WILFORD W. BARBER.

Recent Advances in Psychiatry. By Henry Devine, O.B.E., M.D., Medical Superintendent, Holloway Sanatorium, Virginia Water, England. Second Edition. Philadelphia: Blakiston's. 1933.

This volume is devoted to a discussion of recent advances in psychiatry. The author emphasizes the importance of recognizing a constitutional deficiency basis when considering the factors in the onset of a psychosis, and the importance of not dissociating mental and physical hygiene. He emphasizes the need for prompt treatment of confusional states in order to avoid a continuance of delusions into convalescence. The author remarks that many stupors are characterized by a "suspension of function" rather than by the "decay" found in the stupor of dementia precox. Foci of infection are to be searched out and eradicated, if possible, in any of the psychoses, but should not be termed "the only cause" of a particular psychosis. Statistics evidently prove that malarial therapy in general paralysis of the insane extends life, improves the mental condition, and allows 20 per cent of the treated cases to resume a normal life. "Shock therapy" is discussed and includes "fixation abscess" and sulphur therapy. The depression of the respiratory mechanism exhibited in the psychoses, notably dementia precox, and cerebral stimulation with temporary improvement of symptoms brought about by the inhalation of oxygen and carbon dioxide or the use of sodium cyanide, is discussed. Amelioration of symptoms by prolonged narcosis with sodium amytal is interpreted as psychological.

This is a stimulating book, emphasizing the rapid strides recently made in the organic and psychological interpretation of the psychoses. The second edition has been subjected to thorough revision.

J. P. HILTON.

The Single Woman. By Robert Laton Dickinson and Lura Beam. A medical study in sex education. Baltimore: Williams and Wilkins Co. 1934.

This book is presented by the National Committee of Maternal Health and is based on Dickinson's experience and records of one thousand cases of single women. These cases were studied by the authors with special reference to determining what the relation was between the normal health and the sex life; also with reference to the sex relationship to gynecological diseases.

SARA C. WILCOX.

The Causes of Evolution. By J. B. S. Haldane, F.R.S. Fullerian Professor of Physiology, Royal Institution; Dunn Reader in Biochemistry, Cambridge University; Head of Genetical Department, John Innes Horticultural Institution, Merton. Harper and Brothers, Publishers.

This book is based on a series of lectures delivered in January, 1931, at the Prifysgol Cymru, Aberystwyth, and entitled, "A Re-examination of Darwinism." No attempt is made by the author to argue the case for evolution, since he regards it as quite well proved, but to consider the possible causes of evolution. Since variations are the raw materials upon which the evolutionary factors operate, a clear distinction is made at the outset between fluctuating variability due to differences of environment and genetical variability. Variations belonging to the former category are not transmissible by inheritance and irrelevant for the problem of evolution. Variations within a species are due not only to combinations of genes which have existed before but to new genes which arise by a process of mutation. These causes of variation were unknown to Darwin.

Natural selection, therefore, does not induce new characters which appear in the species, as Darwin believed, but acts in selecting and putting together the materials in the formation of new species. The process of selection combines a number of favorable variations in the production of something new, a new species. The writer points out that mutation and natural selection are not the sole evolutionary factors, but there may be an accumulation of a number of genes having a similar action or a very slow modification of a single gene. Such an accumulation or modification would give a definite trend or direction to evolution. The term commonly applied to such straight line evolution is orthogenesis. This point of view is contrasted with the Darwinian idea that variations are random, haphazard, allowing the selective factor very diverse materials upon which to operate. Natural selection, as Darwin conceived it, stands unscathed as the main cause of evolutionary change, and the only adequate explanation for adaptation. The concluding chapter of the book has more to do with the philosophy of evolution rather than with objective scientific findings. This is reflected in the point of view that a study of the evidences of evolution does not point to any general tendency for species to progress, for when we think in terms of progress we are prone to interpret in terms of human values.

HUMPHREY G. OWEN,

Professor of Zoology, University of Denver.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

Watch for Your Referendum Ballot

A REFERENDUM to the entire membership of the Society was ordered by the House of Delegates last month in connection with the proposed amendment to the State By-Laws which was discussed in the leading article of our September, 1934, issue. Each member of the Society will receive a mail ballot, some time in October. Read the article in last month's Colorado Medicine again: "Shall the State Medical Society Assume Control of Admissions to Charity Clinics and Hospitals." Discuss the matter before your County Society. Then cast your ballot.



Additional F.E.R.A. Medical Bulletins

BULLETINS issued to County Relief Administrators by the state F.E.R.A. office should be read by every doctor who takes part in the F.E.R.A. medical program. Our Committee on Medical Economics has authorized the publication of such bulletins in full, as it is financially impossible for either the F.E.R.A. offices or the Medical Society to mail copies to every doctor. Bulletins issued since the last number of Colorado Medicine went to press follow:

OFFICIAL COLORADO STATE RELIEF COMMITTEE

State Museum Building
Denver, Colorado

RELIEF BULLETIN NO. LIII
August 23, 1934.

MEDICAL PROCEDURE

To All County Administrators and Directors of Relief:

There has been a discussion in many relief offices regarding the question of the payment of medical care up to the amount of \$25.00. This expenditure may be handled in the following ways:

1. It is permissible for a man to work out week by week until payment of this medical bill is completed, thus one week he might make up \$5.00 and the next \$10.00, etc.
2. The question in the method of payment of medical care on the budget can be handled through giving the man **one check** which will include the amount of the medical care which he has worked out for that time.
3. The same policy holds in the payment of medical fees, as in the payment of any other expenditure, that is the visitor must go over with the client the items which the budget covers with the idea that a check for which he works will cover these items. If it is found that the client on work relief does not pay his bills with the money given him, he should be transferred to direct relief **at once**. We then can carry the case as a direct relief case.
4. In some counties, two checks have been issued for medical care. This is no longer permissible, due to the above regulations.
5. For medical care it is possible to allow the same fee charge for this service as would be

charged on direct relief. This has been granted us through the cooperation of the State Medical Society.

Very sincerely yours,
ALICE E. VAN DIEST,
State Relief Director.

AVD:SP

OFFICIAL COLORADO STATE RELIEF COMMITTEE

State Museum Building
Denver, Colorado

RELIEF BULLETIN NO. LVII
September 4, 1934.

MEDICAL CARE ERA AUTHORIZATION

To All County Administrators and Directors of Relief:

The enclosed type of procedure has been worked out by the Baca County ERA Office and seems so well done that we thought it would be of interest to other Counties to see the procedure worked out by a county director of relief.

Very sincerely yours,
ALICE E. VAN DIEST,
State Relief Director.

AVD:SP

MEDICAL CARE

ERA Authorization

Date_____

Client_____ Case No._____
has been authorized by county ERA to make arrangements for medical care for_____ (Member of family)

The amount to be charged Mr._____ must comply with the rules and regulations set up by the Colorado FERA and the Colorado State Medical Association. The amount to be charged Mr._____ will be added to his budget the month following date on which medical service is rendered. The physician must collect fee from client on month or months medical care is added to budget.

(Director of Relief)

PHYSICIAN'S REPORT

I have completed the medical service for_____
I am charging Mr._____
\$_____ which I understand will be added to his budget and which I will collect from him during the month or months of_____.

Diagnosis_____
REMARKS:_____

Prognosis_____

Physician's Signature.

CLIENT'S REPORT

I have received medical care amounting to \$_____ from Dr._____
I approve this amount being added to my budget for the month of_____. If amount (Date)

of medical care covers three months please add one-third of total amount to my budget each month for a period of three months.
Month_____ \$_____, month_____ \$_____,
month_____ \$_____. This three month charge is only to be added for emergency operations.

Client's Signature.

MEDICAL CARE

I. Obstetrical—

Cases Approved—Those receiving assistance through direct or work relief of FERA.

Approved charge in county \$24.50 which includes normal prenatal care, normal delivery, and normal post-natal care. Mileage in county—70c per mile one way, 70 per cent of normal charge one way. This should not be made if fee is charged.

Obstetrical Surgery—

Obstetrical surgery charged 70 per cent of the regular fee.

Examples: Ectopic (tubal pregnancy), cesarean section, forceps delivery, etc.

There should be a regular amount of obstetrical medical care added to the budget the month following date of delivery. The relief client should make the arrangements with his local family physician for medical care which is not an emergency, that is obstetrical care.

The delivery charge of \$24.50 may be added to the budget the month following the date of delivery.

The family physician should be notified that this amount is added to the budget. The physician should collect from client, notifying local relief office after he receives the amount. It is as important that the relief client make his arrangements with the doctor as it gives him more responsibility for his family. If a relief client refuses or neglects to pay his doctor the amount for which he has been budgeted and which he has collected from ERA work relief for that purpose, he should be penalized in some way because he has broken this agreement with both the ERA and his physician.

When a client does not keep his agreement, my suggestion is that we place the client on direct relief for the following month and deduct the amount of \$24.50 from his budget, paying the doctor that amount on a direct relief D. O.

Problems on obstetrical cases:

Approximately 150 to 200 obstetrical cases.

Mileage very great.

Most cases in rural district.

This leaves the fixing of the mileage up to the doctor. He may collect as much as \$150.00 on normal relief cases if he must travel fifty miles one way, which is \$35.00 at 70c a mile. If a doctor makes three trips and collects \$35.00 for each trip, he will receive \$105.00 mileage plus \$24.50 for delivery, making the total cost of confinement amount to \$129.50.

The medical men have never collected this amount from the people in this county who are not on ERA relief, almost always charging from \$25.00 to \$35.00 and this included mileage. I do not believe that the doctors will charge more than the mileage one way for one trip, but even this (if the client lives fifty miles away) will make a confinement trip amount to \$35.00 which exceeds the cost of delivery, \$24.50. Therefore the total cost of confinement must amount to \$35.00 plus \$24.50 which is \$59.50 if the doctor is allowed mileage in addition to fee.

The doctors seem to desire that medical care be put on a direct relief D. O. If this is done, the man is not allowed to work out his medical budget. I know that we are going to be involved in a medical tangle before we are through because we must have the amount on the client's budget in order that the accounting department will not be confused. But if the amount must be taken from the man's work relief and he is given a direct relief D. O., he cannot work it out.

II. Emergencies.

Almost any chronic disease may become an emergency if it becomes acute. Therefore, I have defined emergencies as primary and secondary.

A. Primary Emergencies—Those emergencies which are not the result of a chronic disease which may suddenly become acute, nor any disease which has been under the care of a physician before the initial visit.

B. Secondary Emergencies—Emergencies which are traced to a chronic disease which is the result of an acute condition brought on by a long duration of a disease or accident.

A. Primary Emergencies—Examples:

a. Accidents, broken bones, fractures, lacerations, contusions, shock, etc.

b. Infections which are not over two weeks' duration. Strep-septicemia (blood poisoning) all cases are emergencies.

c. Operations:

1. Acute appendicitis if it has not been chronic and under the care of a physician prior to acute attack.

2. Tonsillectomy. If the life of anyone is in danger unless the tonsils are removed and if recommended by physician and ERA nurse.

3. Mastoiditis if the case has not been under a physician's care for two weeks prior.

4. All obstetrical surgery. Ectopic (tubal pregnancy), cesarean section, forceps delivery.

MEDICAL CARE

Acute attacks of tonsillitis—two visits. Acute enteritis (or dysentery), any acute bowel condition (these are common in every county). Pneumonia if result of whooping cough or other childhood diseases or an acute case where ERA nurse advises continued emergency care. Peritonitis abscesses urgent. Contagious or infectious diseases if the ERA nurse finds that the county is unable to care for these cases adequately because of lack of proper funds. Otherwise they are county or state responsibility. Eyes acute conditions such as pinkeye (one visit). Ears earache (one visit).

Trench mouth should be an emergency because these people will spread the disease.

Skin diseases—

Impetigo (among school children).

Scabies (among school children).

Ring worm (among school children).

These diseases are secondary emergencies but should be allowed to be treated because they spread so rapidly.

One visit should be allowed or there should be a blanket prescription from county physician or some local physician so that those cases are kept under medical supervision.

B. Those emergencies which arise as the result of some other condition.

1. A disease which has been chronic and suddenly becomes acute.

2. A secondary condition traced to another disease such as rheumatism, auto-intoxication, jaundice, etc.

3. Examples:

Infections which are caused because of some disease, T. B. lesions, syphilis, etc.

Operations—

Chronic appendicitis may become an emergency.

Gall stones.

Kidney stones.

All forms of so-called female trouble, tumors, lacerations, salpingectomy's carcinoma, etc., are chronic but may become acute. Tonsillectomy usually from a chronic condition, all sinus trouble, nose and throat trouble, and most eye trouble are secondary emergencies.

All venereal diseases are secondary because the case is usually chronic before it becomes acute.

Contagious and infectious diseases are a responsibility of county and state because it is up to the county to protect its people from contagious and infectious diseases.

There is danger in our assuming too much responsibility for contagious and infectious diseases. We may be left with total community responsibility. The ERA nurse should recommend those, because she will be asked to check these cases in order that they might also be given proper nursing supervision. No chronic diseases are emergencies until they become acute.

Very sincerely yours,

ALICE E. VAN DIEST,

State Relief Director.

AVD:GS

MEDICAL SOCIETIES

DENVER COUNTY

The autumn season opened September 4 for the Medical Society of the City and County of Denver with a business meeting. Dr. Beyer reported for the Committee on Collections, the report being discussed by several members. By an unanimous rising vote Dr. Joseph H. Allen was elected an Honorary Member of the Society. Announcements were made concerning the forthcoming Annual Session of the State Society and a special meeting of the County Society. Dr. Cyrus W. Anderson read a short paper on "Teaching the Patient to Observe Symptoms of Ovulation," and accompanied his paper with two reels of moving pictures.

At a special meeting held September 11, the Committee on Medical Economics of the State Society presented a proposed amendment to the state by-laws, for discussion and study by the

Society. Many members discussed the proposal, both pro and con. No action was taken, as the matter was one to be decided by the House of Delegates of the State Society.

The second regular meeting of the month was held at Denver General Hospital September 18. Dr. David Henry Lawrence, Jr., was elected to membership. Resolutions of condolence were adopted on the deaths of Drs. I. D. Bronfin and W. C. Finnoff. The staff of Denver General Hospital gave the scientific program of the evening, through Drs. J. V. Ambler on "Syphilitic Interstitial Keratitis," C. J. Stettheimer on "Trichiniasis," W. W. King on "Pernicious Vomiting in Double Pregnancy," Nolie Mumey on "A Complicated Case of Jaundice With Operative and Autopsy Report," and L. E. Daniels on "Lymphocytic Meningitis."

O. S. PHILPOTT,
Secretary.

* * *

KIT CARSON COUNTY

Members of the Kit Carson County Medical Society and their wives were entertained September 3 at the home of Dr. and Mrs. V. M. Hewitt at Vona. Prior to the entertainment and buffet lunch the Medical Society members met to confer at length on F.E.R.A. medical problems.

* * *

LARIMER COUNTY

The Larimer County Medical Society held two meetings in September. At the September 5 meeting, held in Estes Park, Dr. J. R. Jaeger of Denver gave an interesting talk on "Epilepsy," which was deeply appreciated by the Society. There followed a prolonged discussion concerning the F.E.R.A. medical program. As the discussion could not be completed in the available time, the meeting was adjourned to reconvene in special session on September 12.

At the September 12 meeting the Society unanimously reaffirmed its stand favoring the establishment of the F.E.R.A. medical program in Larimer County. A committee was arranged to try to get the program working.

L. D. DICKEY,
Secretary.

Obituary

Isadore D. Bronfin

Colorado has for fourteen years been proud of Dr. Bronfin as one of the outstanding authorities on tuberculosis in the United States. He passed away at his home in Denver on July 30, the victim of the disease he had sought to conquer for all mankind. His death is an irreparable loss to our profession.

Dr. Bronfin was born in Lantzkrione, Russia, in 1886. He came to this country in 1902 and was graduated from the University of New York in 1907. The M.D. degree was taken from the Long Island College Hospital in 1911. Failing health caused him to sever connections with institutions in New York and Boston and come to Denver in 1920. He was Superintendent of the Jewish Consumptive Relief Society until seven years ago when he assumed the medical directorship of the National Jewish Hospital. During this period he has been an active member of the faculty of the University of Colorado School of Medicine. His research work, teaching, and writing were of foremost quality.

The survivors are his wife, Mrs. Elizabeth Bronfin; two sons, Leon, 16, and Gerald, 11; his mother, Mrs. David Bronfin; there are also several brothers and sisters in New York State. To them the Colorado State Medical Society extends its sincerest sympathies.

Frank T. Stevens

Colorado Springs has lost one of its leading neurologists, prominent in this region for twenty-one years. Dr. Stevens died on September 6; the acute illness was one of brief duration, though general health had been impaired for several months.

Dr. Stevens was born in Fon Du Lac, Wisconsin, studied at Wisconsin University and took his medical work at Northwestern University, where he specialized in nerve and mental diseases, to which he had devoted his entire career. For seventeen years he was chief of the staff at the Mount Pleasant State Hospital in Iowa and the year previous to coming here was on the staff of the Milwaukee Sanatorium. He studied abroad and took post-graduate work in Vienna and was considered a leading authority.

For eighteen years Dr. Stevens had been consulting neurologist at the Union Printers Home and was on the staffs of all the local hospitals for many years. He was a member of the County, State and American Medical Associations, Colorado Neurological Society and the Central Neuropsychiatric Association, of which he had been a member for twenty years. For many years he was a member of the Colorado Springs Rotary Club.

Dr. Stevens is survived by his wife, Mrs. Emma Giffin Stevens; a brother, Claude H. Stevens of Fon Du Lac, Wis., and a sister, Mrs. Alta T. Miller of Carmel, Calif. To them the members of the Colorado State Medical Society extend their sympathy.

WOMAN'S AUXILIARY

DENVER COUNTY

On August 31, 1934, the Executive Board of the Auxiliary of the Denver County Medical Society met at the home of Mrs. Robert Maul. The officers present were Mrs. Arnold Minnig, president; Mrs. Robert Maul, first vice president; Mrs. Virgil Sells, second vice president; Mrs. Merrill Jobe, treasurer; Mrs. Carl McLauthlin, secretary; Mrs. Harold Henderson, corresponding secretary; Mrs. George Gillen, auditor, and Mrs. George Miel, parliamentarian. Also attending the meeting were Mrs. W. C. Black, Mrs. W. E. Sunderland, Mrs. Byron I. Dumm, Mrs. John G. Ryan, Mrs. Leonard J. Sweigert, Mrs. M. J. Krohn, Mrs. Ralph Danielson, Mrs. Daniel R. Higbee, Mrs. W. W. King, Mrs. C. H. Morian, Mrs. G. M. Wright, Mrs. I. E. Hix, Mrs. D. A. Graham, Mrs. Cleveland Woodcock, Mrs. John A. McCaw, Mrs. H. R. McKeen and Mrs. H. J. Corper, chairmen of the standing committees. Mrs. George Lingenfelter and Mrs. J. W. Amesse, president and president-elect, respectively, of the Auxiliary to the Colorado State Medical Society, were guests. A most delightful tea was enjoyed following the business session.

The September meeting of the Auxiliary to the Denver County Medical Society was a tea, September 17, at the home of Mrs. Harry C.

Brown, 345 Franklin St. The members of the Board acted as hostesses. Mrs. Byron I. Dumm, Mrs. T. Mitchell Burns and Mrs. Harry C. Brown were the committee through whose efforts the tea was made a charming social occasion. Mrs. Arnold Minnig, Mrs. John Amesse, Mrs. George Lingenfelter, Mrs. John McCaw and Mrs. Harry C. Brown received the guests. Mrs. G. A. Moleen and Mrs. Ward Burdick presided at the tea table.

During the afternoon, the members enjoyed a short program. Mrs. W. J. Bingham presented a dramatic reading. Mrs. George B. Kent sang, accompanied by Mrs. Frank B. Stephenson.

MRS. JOHN V. AMBLER.

The Twelfth Annual Meeting of the Woman's Auxiliary to the American Medical Association was held in Cleveland, June 11 to 16. On Monday, June 11, board meetings and luncheons were held, closing the day with a dinner and reception honoring Past Presidents, Board Members, Delegates, etc. On Tuesday after a delightful southern breakfast the general meetings began with our own Mrs. T. Mitchell Burns as Recording Secretary. In attendance at this first meeting were thirty-four National Board Members, thirty-eight Delegates, eighteen Alternates, sixty-two Members, and 102 guests. A very beautiful "In Memoriam" service was held in which the beloved members of our own state who had departed during the year were included. From the President's report the most pertinent thought left with us was "Be healthy yourself before you preach health to your neighbors." We were told many interesting facts such as: Minnesota and South Dakota had county auxiliaries twenty-four years ago; New York state with 13,000 physicians is organizing an Auxiliary; that in spite of the depression there is an increase in the Auxiliary balance. Reports of all standing and special committees were of great interest. The meeting adjourned at noon to be followed by a luncheon and bridge party at the beautiful Lake Shore Hotel.

The Wednesday meetings convened at 9:30 a. m. There was a great deal of discussion on the subject of changing the organization's title to "American Medical Auxiliary," with suggestions that the states change their names in accordance. It was not acted upon but will come up again next year. After some final reports and business, election of new officers was held and Dr.

W. W. Bauer, Director of Bureau of Health and Public Instruction for the American Medical Association, gave us a very fine talk, stressing the fact that the Woman's Auxiliaries were of great help in an educational and general way to the doctors. The annual luncheon followed with a most delightful toastmistress presiding and an instructive address by Dr. J. A. Meyer. We returned to sessions after luncheon to hear the State reports. It was very gratifying to know that whereas we still have much to do, our work in Colorado compares very favorably with the work done by any auxiliary. After many more delightful social contacts, musicales, receptions, garden parties and dinners we left Cleveland with a feeling of being connected with something infinitely worth while.

MARGARET M. CORPER (Mrs. H. J.),

Delegate.

Advertising

It has always been the conviction of the writer that if one has something to sell the best way to sell that thing is to advertise it. This applies to all things, regardless of size, value, or importance.

In the last analysis every doctor has sold himself to his patrons by some method of advertising, be these methods what they may. The writer does not believe in advertising doctors as individuals, or groups of doctors, in periodicals, but he does have the most intense faith in advertising medicine as the best recourse offered the people when they are sick, or as a preventive of illness.

The regular medical profession as a whole, each doctor as an individual, should be profoundly and sincerely thankful that such advertising is being carried on without cost to him. The doctors should make known in private and public, by all means at their command, that they appreciate and are grateful for the advertising appearing at regular intervals in the more important periodicals, by such great and influential firms as Mead Johnston and Company, Parke Davis and Company and The Metropolitan Life Insurance Company.—Bulletin of Sedgwick County Medical Society.

COLORADO STATE MEDICAL SOCIETY

Officers, 1934-1935

President: N. A. Madler, Greeley.

President-elect: Walter W. King, Denver.

Vice Presidents: First, Royal H. Finney, Pueblo; Second, C. E. Lockwood, Montrose; Third, Fred A. Humphrey, Fort Collins; Fourth, G. E. Calonge, La Junta.

Constitutional Secretary: John S. Bouslog, Denver (1936).

Treasurer: Leo W. Bortree, Colorado Springs (1935).

(The above officers constitute the Board of Trustees of the Society.)

Assistant Treasurer: John B. Hartwell, Colorado Springs.

Executive Secretary: Mr. Harvey T. Sethman, 537 Republic Building, Denver; telephone KEystone 0870.

Delegates to American Medical Association: Senior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs; Junior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver.

Councillors:	Term Expires
District No. 1 F. W. Lockwood, Fort Morgan	1936
District No. 2 Ella A. Mead, Greeley	1936
District No. 3 George P. Lingenfelter, Denver	1936
District No. 4 C. T. Knuckey, Lamar, Chairman	1935
District No. 5 George D. Andrews, Walsenburg	1935
District No. 6 C. Rex Fuller, Salida	1935
District No. 7 A. L. Burnett, Durango	1937
District No. 8 Lee Bast, Delta	1937
District No. 9 W. W. Crook, Glenwood Springs	1937

Standing Committees, 1934-1935

Credentials: John S. Bouslog, Denver, Chairman; G. C. Cary, Grand Junction; Lanning E. Likes, Lamar.

Scientific Work: (To be appointed by President-elect.)

Arrangements: (To be appointed by President-elect.)

Public Policy: Walter W. King, Denver, Chairman; Charles O. Giese, Colorado Springs, Vice Chairman; Hamilton I. Barnard, Denver; Maurice Katzman, Denver; Harvey W. Snyder, Denver; Gerrit Heusinkveld, Denver; Charles H. Platz, Fort Collins; John Andrew, Longmont; Crum Epler, Pueblo; N. A. Madler, Greeley, ex-officio; John S. Bouslog, Denver, ex-officio; Mr. H. T. Sethman, Denver, ex-officio.

Publication: William H. Crisp, Denver (1935), Chairman; C. F. Kemper, Denver (1936); C. S. Bluemel, Denver (1937).

Medical Defense: Casper F. Hegner, Denver (1935), Chairman; Frank B. Stephenson, Denver (1936); Edward Delehanty, Denver (1937).

Medical Education and Hospitals: J. G. Ryan, Denver, Chairman; John A. Sevier, Colorado Springs; C. A. Ringle, Greeley.

Library and Medical Literature: John W. Amesse, Denver, Chairman; George A. Boyd, Colorado Springs; Frank R. Spencer, Boulder.

Cooperation With Allied Professions: John R. Evans, Denver, Chairman; Duval Prey, Denver; Richard W. Whitehead, Denver.

Medical Economics: Philip Hillkowitz, Denver, Chairman; Claude E. Cooper, Denver; F. Julian Maier, Denver.

Necrology: Charles B. Dyde, Greeley, Chairman; A. C. McClanahan, Delta; F. P. Gengenbach, Denver.

Special Committees, 1934-1935

Postgraduate Clinics: John M. Foster, Jr., Denver, Chairman; Maurice H. Rees, Denver; John A. Schoonover, Denver; Harold T. Low, Pueblo; J. A. Weaver, Jr., Greeley.

Advisory to the School of Medicine: Frank B. Stephenson, Denver, Chairman; John S. Bouslog, Denver; T. D. Cunningham, Denver; A. C. Sudan, Kremmling; W. B. Hardesty, Berthoud.

Cancer Education: Carl W. Maynard, Pueblo (1935); Harry S. Finney, Denver (1935); W. W. Wasson, Denver (1935); Lyman W. Mason, Denver (1936); Charles T. Ryder, Colorado Springs (1936); John B. Hartwell, Colorado Springs (1936); George H. Curfman, Salida (1937); George A. Unfug, Pueblo (1937); J. E. Naugle, Sterling (1937).

Public Health: C. H. Boissevain, Colorado Springs, Chairman; W. A. Schoen, Greeley; James J. Waring, Denver.

Military Affairs: Nollie Mumeey, Denver, Chairman; G. P. Lingenfelter, Denver; E. W. Knowles, Greeley; B. F. Jackson, Fort Lyon; H. H. Heuston, Boulder.

Nursing Education: H. A. Black, Pueblo, Chairman; M. O. Shivers, Colorado Springs; Calvin N. Caldwell, Pueblo.

Constituent Societies

Meeting Dates; Secretaries

Adams County—Quarterly, date set by president and secretary; secretary, J. C. Stucki, Brighton.

Arapahoe County—Last Monday of each month; secretary, N. Paul Isbell, Englewood.

Boulder County—Second Thursday of each month; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, C. Rex Fuller, Salida.

Clear Creek Valley—Second Tuesday of each quarter; secretary, O. R. Sunderland, Edgewater.

Crowley County—Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

Delta County—Last Friday of each month; secretary, Lee Bast, Delta.

Denver County—First and third Tuesday of each month; secretary, O. S. Philpott, Denver.

El Paso County—Second Wednesday of each month; secretary, Carl S. Gydesen, Colorado Springs.

Fremont County—Fourth Monday of each month; secretary, Archie Bee, Canon City.

Garfield County—Last Thursday of each month; secretary, R. B. Porter, Glenwood Springs.

Huerfano County—Third Thursday of each month; secretary, J. R. Fowler, Tioga.

Kit Carson County—Quarterly, first Monday of December, March, June and September; secretary, W. L. McBride, Seibert.

Lake County—First Thursday of each month; secretary, J. C. Strong, Leadville.

Larimer County—First Wednesday of each month; secretary, L. D. Dickey, Fort Collins.

Las Animas County—First Friday of each month; secretary, C. O. McClure, Trinidad.

Mesa County—Third Tuesday of each month; secretary, F. J. McDonough, Grand Junction.

Montrose County—First Thursday of each month; secretary, C. E. Lockwood, Montrose.

Morgan County—Last Monday of each quarter; secretary, Paul E. Woodward, Fort Morgan.

Northeast Colorado—Second Thursday in each month; secretary, E. P. Hummel, Sterling.

Northwestern Colorado—Second Thursday of each month; secretary, Duane Turner, Steamboat Springs.

Otero County—Second Friday of each month; secretary, C. E. Morse, La Junta.

Provers County—First Tuesday of each quarter; secretary, Scott A. Gale, Lamar.

Pueblo County—First and Third Tuesday of each month; secretary, J. L. Rosenbloom, Pueblo.

San Juan—Second Saturday, January and alternate months; secretary, O. B. Rensch, Durango.

San Luis Valley—Fifteenth of each month; secretary, James R. Hurley, Alamosa.

Washington and Yuma Counties—First Tuesday of each quarter; secretary, L. D. Buchanan, Wray.

Weld County—First Monday of each month; secretary, J. A. Weaver, Jr., Greeley.

WYOMING SECTION

President, H. L. Harvey, Casper

Vice President, Chester E. Harris, Basin

Secretary, Earl Whedon, Sheridan

President-elect, J. L. Wicks, Evanston

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A., G. P. Johnston, Cheyenne; Alternates, F. L. Beck, Cheyenne; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne; J. H. Goodnough, Rock Springs; F. C. Shafer, Douglas

Medical Defense Committee: R. H. Sanders, Rock Springs, Chairman

F. L. Beck, Cheyenne;

Earl Whedon, Sheridan

EDITOR:

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Read 'Em and Don't Weep

ATTENTION is called to the minutes of the House of Delegates at the Casper meeting. Every member of our Society should read these minutes and the reports of the Officers which are reproduced in full.

Often we hear members say they do not attend the business meetings and hence do not know how our Society is standing in a business way. Read the Treasurer's Report and note the splendid financial condition of the Society—something to be proud of when you consider our very small membership. It is worth something to be a member of the Wyoming State Medical Society and you ought to be proud to belong.

E. W.

Intestinal Disturbances

IN Wyoming the seasonal difficulties of summer complaints do not, as a rule, occur so early in the year as in most of the United States. September and October are the two months that generally produce the most cases. This year, however, August witnessed the commencement of such trouble.

Often the water supply is blamed and as the mountain streams begin to flow less, the cry arises that these waters are contaminated. It is true that the bacterial count is

often higher than in June and July, but other factors should be considered—especially with those persons who are panicky and fearful when a case of typhoid fever is reported. They overlook the very important fact that most of these typhoid cases have been elsewhere during the month or two preceding the attack, and contracted the disease there, and so are at once inclined to blame the water supply.

We have no quarrel with those who insist on frequent and expert water analyses, but we do know that often the water is not the offending agent. Everywhere fruits and vegetables are being treated by chemical sprays. If such fruits and vegetables are not washed sufficiently to remove the arsenic and other chemicals, cases of intestinal irritation will follow the use of such food.

Our patients should be particularly warned of these dangers in view of the widespread use of arsenic in the grasshopper control. Publicity on the question of careful washing of all fruits and vegetables will not only help to avoid intestinal troubles and doctor bills but will keep our fine water from receiving unjust blame.

E. W.

ANNOUNCEMENT

The Radiological Society of North America will hold its next Annual Meeting at the Hotel Peabody, Memphis, Tennessee, December 3-7, 1934. The Medical Profession is cordially invited to attend. Further information may be obtained by addressing the Secretary-Treasurer, Dr. Donald S. Childs, 607 Medical Arts Building, Syracuse, New York.

WYOMING STATE MEDICAL SOCIETY

Minutes of the House of Delegates

CASPER, WYOMING, MONDAY, JULY 16, 1934

Elks Home

As provided by the Constitution the House of Delegates of the Wyoming State Medical Society was called to order by the President, F. L. Beck, at 2 p. m. Roll call showed the following Delegates present:

Carbon County—C. L. Wills.
Fremont County—W. F. Smith.
Laramie County—J. D. Shingle, Geo. P. Johnson, W. R. Day.

Natrona County—T. J. Riach, George C. Smith.
Northwestern Society—Chester Harris, Evald Olson.

Sheridan County—W. A. Steffen, W. F. Schunk.
Sweetwater County—R. H. Sanders.
Uinta County—J. L. Wicks.

From the Council—J. H. Goodnough, F. L. Beck, President; Earl Whedon, Secretary.

Quorum present.

Earl Whedon moved, and J. H. Goodnough seconded, that the House of Delegates adjourn until the end of the scientific session of this afternoon. The motion was put and declared carried by the President. Thereupon the House of Delegates adjourned.

Attest: **EARL WHEDON,**
Secretary.

CASPER, WYOMING, JULY 16, 1934

Elks Home

The adjourned meeting of the House of Delegates was called to order at 4:30 p. m. by President Beck. Roll call showed all members of the House of Delegates present who were present at the 2 p. m. meeting.

Quorum present.

Minutes of the meeting of the House of Delegates at the Rock Springs meeting of July 18 and 19, 1932, and of the Casper meeting May 28, 1934, were approved as read.

George P. Johnson moved that the President appoint a special nominating committee. This motion was seconded by W. R. Day. A free discussion followed. The motion was put and declared lost. The following officers were elected:

President-elect, J. L. Wicks, Evanston; Vice President, Chester Harris, Basin; Secretary, Earl Whedon, Sheridan; Treasurer, Evald Olson, Meeteetse; Delegate to A.M.A., two years, George P. Johnson, Cheyenne; Alternates, F. L. Beck, Cheyenne; J. G. Wanner, Rock Springs; Councillor, two-year term, J. H. Goodnough, Rock Springs; Councillor, three-year term, F. C. Shaffer, Douglas; Medical Defense Committee, R. H. Sanders, Chairman, Rock Springs; F. L. Beck, Cheyenne; Earl Whedon, Secretary, Sheridan.

President Beck thereupon appointed the following Committees:

Committee on Deaths of Members—J. L. Wicks, J. H. Goodnough, F. C. Shaffer.

Committee on Resolutions—J. D. Wilson, Geo. P. Johnson, P. S. Read.

Committee on time and place of next meeting—H. L. Harvey, Earl Whedon.

Thereupon the Treasurer, Evald Olson, submitted his report as follows:

Casper, Wyoming, July 16-17, 1934.

To the Officers and Members of Wyoming State Medical Society in Convention Assembled at Casper, Wyoming, July 16, 1934.

Your Treasurer begs to submit the following report:

GENERAL FUND**Debit**

July 15, 1932, to balance \$ 214.91
July 15, 1934, to cash received
from Dr. Whedon from July
15, 1932, to July 13, 1934 1,220.00

Credits

By Vouchers No. 167 to 191 inclusive \$ 822.76
By balance 612.15

\$1,434.91 \$1,434.91

DEFENSE FUND**Debit**

July 15, 1932, to balance \$ 306.16
July 15, 1934, to cash received
from Dr. Whedon from July
15, 1932, to July 13, 1934 1,220.00
Coupons cashed 733.25

Credits

October 18, 1933, bought
one \$500.00 U. S.
Treasury bond \$ 512.19
Accrued interest 5.72

\$ 517.91
June 13, 1934, bought
one \$1,000.00 U. S.
Treasury bond 1,043.75
Commission 1.50

1,045.25
U. S. Government tax08
By balance 716.17

\$2,279.41 \$2,279.41

INTEREST ACCOUNT

June 15, 1932, by balance \$ 773.41
April 9, 1934, coupons cashed 551.25
June 16, 1934, U. S. Treasury
check for June 15 interest 67.50
June 22, 1934, coupons cashed 135.00
July 13, 1934, to balance \$1,527.16

\$1,527.16 \$1,527.16

U. S. TREASURY BOND ACCOUNT

June 15, 1932, by balance \$8,401.11
Oct. 18, 1933, bought one \$500.00
U. S. Treasury Bond 517.91
June 13, 1934, bought one
\$1,000.00 U. S. Treasury Bond 1,045.25
July 15, 1934, by balance \$9,964.27

\$9,964.27 \$9,964.27

TOTAL RESOURCES

July 15, 1934, U. S. Treasury Bonds registered at the Treasury Dept., Washington, D. C., in safety deposit box at Cody, Wyo., par value \$ 7,000.00
U. S. Treas. Bonds sent to Washington, D. C., for registration, par value 3,000.00
Cash in First National Bank of Meeteetse, Wyoming 1,331.56

Total \$11,331.56
DR. EVALD OLSON,
Treasurer.

Meeteetse, Wyo., July 13, 1934.

This report was referred to the Council to audit. Secretary Whedon then read the following report:

Secretary's Report

On July 19, 1932, my books were checked by the Council Members, Dr. F. C. Shaffer and Dr. C. W. Jeffrey, and reported correct to the House of Delegates. Since that date I have collected and remitted to Dr. Evald Olson, our Treasurer, dues for one hundred twenty-five members for the year 1933, and one hundred seventeen for the year 1934, making a total of \$2420.00. One-half (\$1210.00) of which was credited to the General Fund and the other half (\$1210) to the Medical Defense Fund. Expenditures for July 19, 1932, to July 19, 1933, were as follows:

Evald Olson, postage and stenographer fees \$ 2.00
Dr. Sanders, telegrams 12.56
St. Louis Button Co., badges 9.50
Dr. Whedon, telegrams and stamps 9.79
First National Bank of Cody, acct. Treasurer 3.30

Dr. Evald Olson, Treasurer's Bond-----	12.50
Dr. C. W. Jeffrey, Evanston hearing-----	26.47
Dr. Earl Whedon, trip to St. Paul-----	91.54
Sheridan Press, letter heads and envelopes	33.25
Dr. Earl Whedon, stamps, phones and ex-	
penses (express)-----	15.55
Bank of Commerce, rent of safety deposit	
box for Dr. Olson-----	5.50
Bentley & Zullig, Bond of Treasurer-----	12.50
Bentley & Zullig, Bond of Secretary-----	5.00
Dr. F. L. Beck, phone calls-----	11.80
Dr. Earl Whedon, phones, stamps, A. M. A.	
Directory-----	38.00
Secretary's stenographer-----	200.00
Total-----	\$489.26

July 19, 1933, to July 16, 1934

Colorado Medicine, 100 members, 1933, at	
\$2.50-----	\$ 250.00
Dr. F. C. Shaffer, attending Council Meet-	
ing at Cheyenne-----	23.72
Bank of Commerce, safety deposit box-----	5.50
Wilcox Flower Shop, flowers for Dr.	
Tonkin-----	11.18
Bentley and Zullig, Secretary's bond-----	5.00
First National Bank of Cody, safety de-	
posit box—Treasurer-----	3.30
Dr. J. H. Goodnough, phones-----	3.90
Sheridan Printing Co., letter heads and	
envelopes-----	21.98
Bank of Commerce, expense registering	
bonds-----	4.90
First National Bank of Cody-----	3.24
Colorado Medicine, Balance due on 1933-----	62.50
Colorado Medicine for 1934-----	292.50
Dr. F. L. Beck, president's expense-----	136.86
Dr. Earl Whedon, Steno-----	\$200.00
Stamps-----	30.00
Phones-----	34.99
Telephones-----	15.15
	280.50
Dr. Evald Olson, expense-----	3.38
Quick Printing Co., programs-----	20.00
Total-----	\$1,128.46

From the foregoing figures it will be seen that the General Fund expenses for the past year have run ahead of the receipts in the General Fund. Of the above amounts the sum of \$312.50 should have been paid out to Colorado Medicine in 1932. Adding that sum to the \$489.26 would give \$801.76 for 1933, whereas the General Fund received \$625.00 for that year, making a net loss of \$176.76 for 1933. When we examine the receipts and expenditures for the year ending July 16, 1934, the story is different.

The paid-up membership for this year is on a basis of 117 members or a total of \$575.00 for the General Fund by a like amount for the Medical Defense Fund. The total expenses paid out in the last year were \$1,128.46 less the \$312.50 for last year's Colorado Medicine, making an overdraft for this year alone of \$230.96. However, there was a balance the Treasurer had in the General Fund at Rock Springs meeting of \$214.91. The total collections for the past two years amounted to \$1210.00 for the General Fund, making a total of \$1424.91. Against this total the total expenses for the past two years have been \$1517.04. This makes an overdraft of \$307.04, less cash on hand of \$214.91, leaves a true deficit of \$192.81, which will have to come out of interest on the \$500.00 bond.

From the above it will be seen that during the past year our expenses have overrun our receipts \$407.72. To account for some of this added expense, record must be made of the added expenses connected with the F.E.R.A. together with the heavy telephone and telegraph expenses in both the Secretary's and the President's expense accounts. In years previous to this our expenses have been under our receipts, but this year it is just the reverse.

However, the financial picture is not as black as it looks at first glance. For eleven years our dues have been \$10.00 per year. Half of said

sum being set aside for the General Fund and the other half placed to the credit of the Medical Defense Fund.

Chapter XII, Section I of our By-Laws reads as follows: "Five dollars out of the annual dues of each member of the Society shall be set aside as a special fund for Medical Defense. Whenever such fund shall exceed the sum of \$10,000.00 the surplus over and above this amount shall be turned back into the general treasury or may be used for such other purposes as the House of Delegates may direct." Inasmuch as the Honorable Treasurer, Dr. Evald Olson, now reports that there is \$9,964.27 in the Medical Defense Fund with over \$100.00 which will be collected this year the balance can be placed to the credit of the General Fund and in the future so long as there remains \$10,000.00 in our Defense Fund the whole \$10.00 dues can be deposited by order of the House of Delegates into the General Fund. Under no condition should we agree to cut the yearly dues to less than \$10.00 under the unsettled and changing times that we as Americans are going through. We must have more money in the General Fund to meet the expenses which will, in the next few years, come up and have to be met by our Society.

It is fine to talk about cutting the dues and to do this or that, but we all realize from the changes that have occurred in an economic way since our Rock Springs meeting that the future for the individual practice of medicine is most unsettled. We, as a State Society, will be called upon to take a decided stand or lose all our cherished rights as private physicians.

State Medicine is on its way much faster than many members of this Society believe and it will require not only work but money to meet the coming changes. Membership in our State Medical Society only costs us \$10.00 per year. For it we receive one year's free subscription to Colorado Medicine, the benefits of our Annual Scientific meetings, and pay the expenses of the state organization.

Our savings on Medical Defense Insurance are almost as much as our dues, and we have built a fund of \$10,000.00 (Government Bonds only) to use in case of emergency. Eleven years ago when this defense plan was made the objection was raised that we would never have enough money in the Medical Defense Fund to do any good. Today that fund stands at \$10,000.00. One-fourth of the amount in this fund can be expended if necessary in the defense of malpractice for any member entitled to the benefit of this fund. The By-Laws provide very wisely: "Where the defense is conducted by an indemnity insurance company under provisions of a policy held by a member with the company, the Society will not contribute any expense but give all other aid possible." The prime object of this Defense Fund is to decrease and discourage litigation, and to effect a better feeling and understanding between the physicians themselves and the general public. We do not in any way propose to aid in defeating any just claim which any person may have against any member of the Society, but simply to protect our members from unjust suits.

That the United States Fidelity and Guaranty Company has, in every way, fulfilled its contracts with the members of the Wyoming State Medical Society is a source of great satisfaction to the membership. In the cases they have been called upon to defend they have been most considerate and have shown the finest of legal skill and judgment, and when you consider the great urge which must come in times like these to try to

secure damages on the slightest excuse we admire the high standing of the members of the Wyoming bar for their refusal to bring suits of questionable character.

The recently decided case in the Northwestern Medical Society completely vindicated the worthy doctors involved, and proved the usefulness of our Master Contract with the United States Fidelity and Guaranty Company.

Plans were made during the five years previous for a joint meeting in the Yellowstone Park in 1933 of the State Societies of Utah, Idaho and Wyoming. Utah withdrew after our Rock Springs meeting in 1932. Only two months before the date set for the 1933 meeting the Idaho State Society decided on account of the hard times that they would not join Wyoming in this meeting. It was then too late to get up a program for a State Meeting and we did not think it fair to the outstanding men from all over the United States, who had so kindly offered to come to the Yellowstone Park joint meeting, to come way out to Wyoming and only have the small audience our State Society could offer. The Council decided not to hold any meeting during 1933. The result was that all officers held over until their successors shall be elected this year.

The Chairman of the Council will no doubt make a report, as the constitution provides, of the Council held at Cheyenne, January 30, 1934.

I feel that an explanation should be given as to the errors in printing this year's programs. The printer, one of the best in Sheridan, was furnished with a typewritten copy, a carbon copy being retained in our office. Inasmuch as we were changing the size of the programs this year the printer brought a sample for our inspection. There were some errors which he said he would proofread and correct. This he admitted he failed to do and the result was that some speakers were omitted and to others wrong titles were given. As soon as the errors were discovered the printer reprinted at no additional expense to the Society the corrected program on green paper and these were sent out to all members of our Society, and to all regular doctors in the state, even though they were not members of the Society. This is the first time in sixteen years of program making that errors have occurred and we certainly regret the accident.

Every practicing physician in Wyoming should belong to our State Society and if we all do our duty the Society will be larger and more useful. Let us do it. Only through a united medical profession can we accomplish what should be done for the people of Wyoming.

Respectfully submitted,

EARL WHEDON,
Secretary.

Report of the Editor

During the period from August 1, 1932, to and including July 1, 1934, as Editor of the Wyoming section of Colorado Medicine, the following material has been edited: Editorials, 55; Scientific papers, 8; Obituaries, 8; Officers' Reports, 4; Roster of Membership, 2; President's Messages, 5; State Board of Health Rules, 1; Treasurer's Report, 1; Minutes of the House of Delegates' Meetings, 2; Programs, 2; Official Notices, 2; New Notes, 56.

The number of scientific papers presented was unusually small compared to any other like period in the past, but as no state meeting of the Society was held in 1933 no papers were available from that source.

Your editor has repeatedly requested the privilege of printing some of the papers presented

at the meetings of the County Societies, but most members are so modest that they will not turn in these papers for publication.

Again permit me to call your attention to the difficulty in securing local news items. They add a great deal to the value of our state journal and some way ought to be discovered by which the Editor could be supplied each month with news items from each Society. Years ago we thought we had a plan that might work, but it did not produce results. Our idea was to have some doctor's wife in each Society to act as local representative. We wrote the Secretary of the Ladies' Auxiliary and requested that the Auxiliary appoint such reporters, but no action was taken. We hope at this meeting to secure some cooperation along this line.

Editorially we have written as we honestly believe. We are well aware all our ideas may not have been alike and no doubt some do not agree with everything we have written. That in itself is just what we need. Something to set us to thinking which in the end will make our Society better, more active and useful.

As an example one Editorial published a few months back entitled "Forty Degrees Below Zero" brought several letters to the Editor. Some of them were very strong in their objections. Three or four different Societies thought we referred to them. As a matter of fact the article referred to no society and plainly stated so. It only said "one town." On the other hand we received several letters, not only from members of our Wyoming Society, but from men in different parts of the United States commending us for the article. There is no question that conditions need improving in some of our County Societies, and if a "yes man" policy is to be the editorial one our journal will be of little value.

We have repeatedly urged on the President, all officers, and members, the use of space in the journal and we believe that by so doing a better understanding of the problems we are all facing would result. A great deal of expense could be avoided by use of our journal in place of mimeographed letters such as were sent out at considerable cost in printing and postage during the present year.

We all know that Colorado Medicine does contain some very fine editorials and splendid scientific papers in the Colorado Section, but by more cooperation we believe our section could be made better. We urge upon the officers and members greater use of these columns.

EARL WHEDON.

This report of the Secretary was also referred to the Council for audit. Thereupon the House of Delegates adjourned subject to the call of the President.

Attest:

EARL WHEDON,
Secretary.

CASPER, WYOMING, TUESDAY, JULY 17, 1934
Elks Home

The House of Delegates was called to order by President Beck in an adjourned meeting at 4:30 p. m. Roll call showed the following delegates present:

Albany County—E. W. DeKay.
Carbon County—C. L. Wills.
Fremont County—W. A. Smith.
Laramie County—George P. Johnson, J. D. Shingle, W. R. Day.
Natrona County—T. J. Riach, George Smith, H. L. Lathrop.
Northwestern Society—Chester Harris, Evald Olson.
Sheridan County—W. A. Steffen, W. F. Schunk.

Sweetwater County—J. H. Goodnough, Councilor.

Uinta County—J. L. Wicks.

President F. L. Beck.

Councillor F. C. Shaffer.

Secretary Earl Whedon.

Quorum present.

J. H. Goodnough reported for the Committee on Deaths of Members as follows:

"Whereas, since our last session of the Wyoming State Medical Society, there has been called from our midst:

"Dr. Albert E. Brownrigg,

"Dr. C. O. Larsen,

"Dr. John Nagle,

"Dr. E. F. Schiedegger,

"Dr. Edward Schunk,

"Dr. A. B. Tonkin,

"Dr. W. A. Wyman,

"Dr. W. W. Yates.

"They were, in their profession, conscientious and honest in their practice, were balanced in their judgment and loyal to their friends, state, and fellow men. In their passing the profession of the state has lost their good and timely counsel;

"Now, Therefore, Be It Resolved, That a copy of this resolution be spread upon the minutes of the Wyoming State Medical Society, and that a copy be mailed to their families.

"J. L. WICKS,

"J. H. GOODNOUGH,

"W. A. STEFFEN,

"Committee."

This report was adopted and the President invited the members to stand in silence in memory of the departed ones.

J. D. Wilson, Chairman of the Resolutions Committee, offered the following resolutions which were read and unanimously adopted:

Report of the Committee on Resolutions

Be It Resolved by the House of Delegates of the Wyoming State Medical Society, in regular session at Casper, Wyoming, this Seventeenth day of July, 1934, that we commend the activity of the President, Dr. F. L. Beck, and the Secretary, Dr. Earl Whedon, for their efforts to improve the welfare of the physicians of Wyoming, especially in regard to the F.E.R.A.

Be It Further Resolved, That we recommend the adoption of the amendment to Article V, House of Delegates, so that all past Presidents, Secretaries, and Treasurers shall be members of the House of Delegates.

Be It Further Resolved That we recommend a strong standing committee be appointed by the President to make a careful study, compile data on the economic conditions as they affect the medical profession in the state with authority to act on such matters as may be necessary for the State Society.

Be It Further Resolved That a vote of thanks be extended to Dr. Nolie Mumey and his wife for the wonderful exhibit of wax models shown so beautifully at this convention.

Be It Further Resolved, That we express to the members of the Natrona County Medical Society our sincere gratitude for the splendid arrangements made for our comfort and entertainment during our stay. Especially do we wish to thank the members of this County Society for the Smoker Sunday evening and the splendid banquet at Goose Egg Inn. To Dr. C. J. Kamp and the Natrona County Hospital for the splendid clinics and to the Elks Lodge of Casper for the use of their fine Elks Home, which has been so freely given us for our meetings, we express our thanks and appreciation.

Be It Further Resolved, That we extend a special vote of thanks to the wives of the Natrona County doctors for the great attention given the wives of the visiting physicians and for the entertainment given them.

George P. Johnson, Delegate to the House of Delegates of the A. M. A., reported on the recent Cleveland Meeting. This report was so complete and interesting that a special vote of thanks was adopted at the suggestion of President Beck for the splendid services rendered by our honored delegate, George P. Johnson, who for many years has honored the society as its delegate to the A. M. A. H. L. Lathrop also moved that it was the sense of the House of Delegates that George P. Johnson was one of the outstanding surgeons of Wyoming. This motion was seconded and duly carried.

George P. Johnson, as Councillor, reported that the Council as an auditing committee had audited the books of the Secretary, Earl Whedon, and the Treasurer, Evald Olson, for the period from July 19, 1932, to July 16, 1934, and found them correct, the funds properly invested in Government Bonds, with small balances in reliable banks, with proper fidelity bonds on the part of the Secretary and Treasurer. This report upon motion was adopted.

George P. Johnson also reported for the Council that by action of the Carbon County Medical Society Myron L. Crandall had been expelled from membership in that Society and unless Myron L. Crandall appealed no action would be taken by the council.

Earl Whedon moved that E. L. Jewell be elected an honorary member of the Wyoming State Medical Society. This motion was seconded by F. C. Shaffer. The motion was duly put and carried.

George P. Johnson called attention of the House of Delegates to the need of a Reference Committee similar to those used by the A. M. A. He stated that the Council would this year propose certain changes in procedure in our system modeled along the lines of the National Association.

The Committee on Time and Place of the 1935 Meeting reported that invitations had been extended by Laramie, Lander, Cody, Cheyenne, and Sheridan. After a general discussion Lander was selected on motion of J. L. Wicks, seconded by J. H. Goodnough, the exact dates being left to the President and Secretary to decide.

President Beck called President-elect H. L. Harvey to the chair, welcomed the new President, and turned over the gavel to him. Upon accepting the office the new President promised his best efforts to the Society and asked for the cooperation of all the members.

Earl Whedon moved that the amendment to Article V, House of Delegates, adding the following words: (4) All past presidents, past secretaries and past treasurers of the Association, who shall have the same rights as the other members of the House of Delegates," be adopted. J. L. Wicks seconded the motion which, after discussion, was unanimously carried. The President declared it adopted as part of the Constitution.

A motion was made by J. L. Wicks that the Society vote our esteemed Treasurer, Evald Olson, the sum of thirty dollars in appreciation by the Society of this service as Treasurer. This motion was seconded, put, and carried.

No further business appearing, the House of Delegates adjourned sine die.

Attest:

EARL WHEDON,
Secretary.

A REMARKABLE INVESTMENT TRUST RECORD

Newton, Mass., Nov. 24, 1933.

State Street Investment Corporation shares have been brought to my attention as an ideal medium with which to ride the inflation movement. Do you agree?

Answer—The record of this corporation is unusual among investment trusts. It is officered and managed by Boston men of long experience in the handling of trust problems. Incidentally as of September 30, last, the officers, directors and their families had over \$6,000,000 of their own funds invested in the corporation and full liquidating value of the portfolio was paid at the time their investments were made.

The corporation was organized to provide a medium for the examination and selection of common stocks; to own the best ones during favorable periods and to take a cash equivalent position during unfavorable periods. Its success has been phenomenal. Starting in 1924 at \$12.50 a share, the liquidating per share value of the portfolio rose to \$95.79 at the close of 1928. In other words, a \$1000 investment in 1924 had risen to \$7663 while a \$1000 purchase of the stocks comprising the Dow-Jones averages advanced only to \$2936. On December 31, last, the price of State Street Investment shares had dropped to \$42.73, a figure which still showed a large premium over purchase cost, the original \$1000 investment being then worth \$3418 while like investment in the Dow-Jones stocks would have been worth only \$583 at that time.

The above appeared in the "Boston News Bureau," November 28, 1933.



We consider State Street shares an excellent hedge against probable impending inflation as well as a sound and profitable investment. Full information will be gladly sent upon request.

SIDLO, SIMONS, DAY & CO.

First National Bank Building

Denver, Colorado

MENTION COLORADO MEDICINE

Colorado Hospital Association

OFFICERS

GUY M. HANNER President Beth-El Hospital Colorado Springs	JOHN ANDREW, M.D. President-Elect Longmont Hospital Longmont	I. D. BRONFIN, M.D. First Vice President National Jewish Hospital Denver	SISTER CYRIL Second Vice President Seton School of Nursing Pueblo	WALTER G. CHRISTIE Treasurer Presbyterian Hospital Denver	WILLIAM S. McNARY Exec. Sec. Univ. of Colo. School of Med. and Hosps. Denver
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TRUSTEES

B. B. JAFFA, M.D. Denver General Hospital Denver, Colorado	J. E. SWANGER Modern Woodmen of America Sanatorium Woodmen, Colorado	MAURICE H. REES, M.D. Univ. of Colo. School of Medicine and Hospitals Denver, Colorado	ROBERT B. WITHAM Children's Hospital Denver, Colorado	FRANK J. WALTER Saint Luke's Hospital Denver, Colorado
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No More Beds Needed!

AN executive of one of the public institutions recently stated that there was need in Colorado for the erection of buildings to provide more public hospital bed space. The private hospitals are willing to care for the county and state charges at rates which are favorably comparable to the per diem cost in public institutions. In view of this fact, it would seem that the building of further hospital facilities for indigent patients is unwise for several reasons:

First, the number of indigent patients should not always be as great as it is at present, in which case further provision for the present demand would result in a waste of space later on.

Second, since the private hospitals are willing to care for patients at approximately the same per diem cost as the public hospitals can do, it is an extravagance to make the expenditure of capital investment necessary to erect more buildings.

Third, the placing, by the government agencies, of public patients in private hospitals would greatly help absorb the fixed overhead expense of the private hospitals.



Medical Men for Things Medical

"The principle that medical men should be the ones to exercise control over medical service is almost axiomatic. Yet there is confusion of thought where there could be straight thinking if all the facts were brought out and faced.

"There are those who would virtually make the physician an employee of the state. They fail to recognize the utter incompatibility between the American political system and the methods of truly professional men.

"There are those who complain about the scarcity of physicians. Yet it is a fact that while England has one doctor for 1,490 persons, France one for 1,690, and Sweden one for 2,890, there is in the United States one physician for every 780 persons.

"There are those who denounce our hospitals on the score of high charges for service, but the truth is that the cost per day of a hospital room with meals and the day and night personal ministrations required by an invalid is usually less than a well person would pay for mere room and meals in a first-class hotel.

"There are those who would like to let down the bars to self-medication. Yet the fact is that during the last few generations the average span of human life has been extended ten years, chiefly through the discoveries of medical science.

"Physicians know these things. They spend years acquiring an education on the care and repair of the most marvelous mechanism on earth—the human body. But they would readily admit that this education does not qualify them for telling railroad executives how to stage an opera. The work of the world needs many kinds of specialized knowledge, but certain it is that each field of work will be best managed by those who know it best."—from Mead Johnson & Company's announcement in Hygeia, August, 1934.

ANNOUNCEMENT

The Gynceean Hospital Institute of Gynecologic Research of the University of Pennsylvania is conducting an intensive study of families into which congenitally malformed individuals have been born.

Special interest centers in families in which malformations have appeared in two or more children. Physicians who have knowledge of any such families are urged to communicate with:

DR. DOUGLAS P. MURPHY,

Gynceean Hospital Institute, University of Pennsylvania, Philadelphia, Pa.

Colorado Medicine

Title Reg. U. S. Pat. Off.

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Managing Editor:
Harvey T. Sethman

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C. F. Kemper, M.D.
C. S. Bluemel, M.D.

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EDITORIAL NOTES AND COMMENT

The Little Red

THE proverbial lore of the thrift and conservatism of the Scotchman makes it fitting to quote Dr. James Crockett, tuberculosis physician of the University of Glasgow, as to the present status of the institutional treatment of tuberculosis (Tubercle, 1934, 15:537) and as a tribute to the farsightedness and wisdom of an American pioneer in this field. "The reduction of the death rate from tuberculosis in Scotland, 79.2 per cent in a little more than sixty years, can be taken as representative of the reduction in most progressive countries during the same period."

"In the work of eradication, institutions for tuberculosis are useful from many points of view. They definitely cure a few cases. They alleviate the sufferings and prolong the lives of the afflicted. They segregate the infectious individual when he or she is most dangerous, and thus prevent dissemination."

Dr. Edward L. Trudeau and the American sanatorium are inseparable treasures to American medicine. Fifty years after "The Little Red" was conceived and realized for the material outlay of about four hundred dollars, to be occupied for the first time by two factory girls—its 14x18 feet and a little porch so small that only one patient could

sit out at a time—a Scotch physician reiterates and verifies what Trudeau was convinced of—the merit and value of the sanatorium. No idle dream this, with such a timely admission.

Now the National Tuberculosis Association commemorates Dr. Edward Livingston Trudeau and "The Little Red"—the small cottage in the Adirondacks built in 1884 and contemplated in 1882, the year of the discovery of the tubercle bacillus, a fact pertinent to Trudeau's conception of eradication—by impressing this year's Christmas seal and the great American humanitarian-giving public with the "Little Red," the parent of American Sanatoriums.

When a Scotchman confesses "To cure even a few is a good thing; to alleviate the sufferings and prolong the lives of a very large number is a better thing; to prevent massive infection of the population is one of the best things that we do," it is advice worth acknowledging and heeding.

That the death rate in various countries varies largely with the provision of sanatorium and hospital beds, is another of the Scotch physician's observations—in 1934—justifying Trudeau's conception upon which the "Little Red" was so well founded and a fact well worth pondering.

H. J. C.



Pensions

NEVER before has so much been said and written about old age pensions. Many of our older people are already planning on the government's proposed extravagant sum—more, in the vast majority of instances, than they ever had before. It would put money into circulation all right; just watch the mountebanks start chiseling into the old folks should such a thing ever come about.

Be that as it may, the subject of old age pensions is poignant. It is something for physicians to think about; no company automatically pensions us at a certain age or after so many years of service. No faithful doctor of medicine should ever be subjected to financial humiliation in his later years. Our Woman's Auxiliary is aware of the need of something to be done and has already taken tangible steps in that direction. However, the move should be on a scale far more vast.

We have noticed a few articles on this subject in our medical journals. They have shown a few pertinent facts. If 150,000 doctors paid \$1.00 per month into a fund, it would amount to \$1,800,000 annually. It would provide, say, \$100.00 a month to every physician past the age of 65 and half that sum to his widow for life if she survived him. In order to partake of the fund he would have to abstain from practice. This would take approximately 20,000 men from practice to begin with and perhaps 5,000 per year after that. There would be some resultant easing of the "starvation period" suffered by the younger men.

There is plenty to be said pro and con. It must be promulgated through our publications, discussed in our meetings, and criticized by great insurance companies and our parent organization, the American Medical Association.

Death Rate of Physicians

SPEAKING of pensions, it might be well to consider what chance there is for a fellow to live and receive it. There is a popular belief that physicians are not a long

lived group and that heart disease claims more than its share among us.

The statistician of the National Tuberculosis Association has completed a five year study of mortality statistics based on data of the United States Census Bureau. It includes all gainfully employed males between the ages of 15 and 64.

The average death rate in this group was 8.70 per 100,000. The highest, 36.22, was among hostlers and stable hands and the lowest, 2.69, among college professors. Physicians stood 10.69—two higher than the average; lawyers do pretty well: 7.89. They don't commit suicide as often as doctors either, and doctors only do that slightly more than the average. In fact unskilled laborers claim their own lives far more often. And farmers still less often! However, there are no figures available since the A.A.A. and the drouth.



Broad Red Cross Program Supported by Roll Call

WHEN the American Red Cross early this year undertook to train in first aid methods foremen and other key men on government relief projects, it was doing intensively a service which it has been extending on a broad scale to firemen, policemen, industrial employees and others in civilian life, through many years of safety campaigning.

More than 70,000, it is estimated, were trained in Red Cross first aid during the brief life of the Civil Works Administration alone. Thousands more were prepared to cope with the accidents occurring in Civilian Conservation Corps and other government units engaged in hazardous work. From seven to eight thousand Red Cross instructors—physicians and specially-trained laymen—conducted the courses, which were based upon the Red Cross first aid textbook.

More than 600,000 persons have received certificates for completing Red Cross first aid courses. More than half a million certificates have been issued in standard and advanced life saving. Year-round campaigns in each of these subjects are conducted by chapters throughout the country.

and a corps of field representatives is constantly engaged in conducting classes, giving examinations for teachers and otherwise stimulating and coordinating the work. At the beginning of the camping and swimming season each year a number of aquatic schools are held at strategic points, to which are admitted for intensive special training playground supervisors, camp counselors, gymnasium instructors, life savers and others of professional background.

Health conservation and disaster relief are among the other major activities of the Red Cross, which rely for their support on the annual membership Roll Call, held between Armistice Day and Thanksgiving, November 11 to 29.

More than 35,000 nurses are on the active list of the Red Cross Nursing Service, subject to instant call by army, navy or Red Cross. Chapters employ more than 700 public health nurses, who nurse at the bedside of the needy, inspect children and assist physicians in the schools, perform many functions toward the control of disease. Each year a thousand nurses qualified as teachers conduct classes in home hygiene and care of the sick. Last year more than 53,000 men, women and children received this instruction. Every year sees from three score to 100 disasters—tornadoes, floods, fires, earthquakes, hurricanes, explosions, wrecks—in which the Red Cross extends relief.

Volunteers, under the sponsorship of the Chapters, perform most of the work of the Red Cross. A year-round volunteer program includes office work, chapter administration, the making of garments, surgical dressings, layettes, Christmas bags, braille for the blind; the preparation of canned foods and the serving of food by the canteen corps; motor corps calls, home service visits, and service in hospitals.



Jonah, M. D.

A RECENT issue of the Illinois Medical Journal took a ruthless swing at what it terms "Sinai's Health Scheme." It claims that a most terrible blow has come to medi-

cal ethics since the Michigan State Medical Society has approved in principle and for experiment a health insurance plan providing complete medical, surgical, dental, hospital, nursing and optical care to lower paid classes at a flat yearly sum of about \$100 per family or \$27.88 per person. Their editor avers that "the tribe of fools could easily pick a king from the ranks of the overtrusting as well as overworked M.D.s."

For the sake of amusement, let us inspect the introduction to that article:

"At times the capacity of the great American gullet to swallow any fool idea that the modern P. T. Barnums stick into the great American throat amazes even the biggest gulls among the gullibles.

"If Jonah had lived in America today, the probabilities are that he himself would have been out swallowing the whale instead of letting the whale swallow him. Undoubtedly, too, Jonah would write after his name—M.D."

That journal has since repudiated any too personal allusions to Nathan Sinai, one of our best students of social insurance, but it stands pat against the experiment. Have another look at the above Jonah story! And admit that it's the truth.



Mantoux Test

THE Nebraska Tuberculosis Association, with the aid of a C.W.A. grant, has performed nearly 7,000 Mantoux tests in Omaha and Lincoln on high school students. The purpose has been to confirm or deny the popular belief that children are invariably infected with tuberculosis before attaining adult life.

The positive reactors numbered about 20 per cent of the total. There were no active cases considered. This would deny the popular belief. The workers believe that the positive reactors will comprise the majority of cases of actual pulmonary tuberculosis during succeeding years. They propose to teach that these cases should be x-rayed once a year into adult life. The plan should benefit the individual, the community, and the medical profession.

HEART DISEASE AND THE GENERAL PRACTITIONER*

WALTER L. BIERRING, M.D.
DES MOINES, IOWA

It is indeed a privilege and a pleasure to accept the honor of your invitation to come before you. Having temporarily an official connection with the parent Association, I have come in contact with a great many State Societies and always feel a thrill of pride at the leadership that is manifested everywhere, from Coast to Coast. You must feel proud that you belong to a profession that, in endeavoring to advance human welfare, is always at the front rank.

Your Secretary suggested the subject for this morning and it seemed, possibly, that a consideration in a general way of heart disease as it comes under the observation of the general practitioner might be of interest. We are conscious of the fact that we are approaching heart disease in a different way from that of some twenty years ago. Formerly we were concerned mostly with the more or less acute manifestations of heart disease, with the effects of the same in the form of valvular disorders, while more recently we have become conscious that heart disease is becoming not only the leader in mortality statistics in this country but it is apparently a part of our present civilization, and so we have come to think more of those forms of heart disorder which are a part of the ageing period. They are forms of degenerative processes that involve not only the heart but the entire circulatory system, the associated changes in the kidneys and many other organs. There is no question now that we are able to do much in the way of prevention for so-called valvular disorders. It is to be hoped with increasing knowledge we may be able to do something more for these so-called degenerative types.

It is customary to classify, in a way, heart disease according to certain age periods, as seen by the practitioner. We find that in childhood and young adult life, the type of heart disease that is met is usually the result

of some of the so-called rheumatic infections, particularly of the streptococcic type—occasionally from diphtheria, from whooping cough, measles and influenza, resulting usually in an inflammation of the valvular endocardium, occasionally the pericardium and the myocardium, leaving in its train certain defects in the valves recognized as insufficiencies or stenoses affecting principally the mitral or aortic valves.

The interpretations of the resulting disturbances in the valvular affections refer to the type of murmurs, area of greatest intensity, and their place in the heart cycle usually designates the diagnosis. So we depend almost entirely upon the recognition of physical signs in these cases.

It has been the observation of Dr. Cabot and many others who have examined large groups of school children that very frequently they have found valvular lesions which had not been suspected, indicating that the individual may be in apparent good health and yet have a very marked valvular defect.

With increasing years there comes another infection in middle life due to the syphilitic infections, knowing well that the vascular tissues have a peculiar affinity for the spirochete, particularly as a later manifestation ten to twenty years after the initial infection. It selects, then, usually the aorta or the cerebral arteries, and producing very definite changes in the aorta with subsequent dilatation and occasionally aneurism, producing physical signs which are easily recognized. Such a sign is the enlargement or a widening of the aorta and the marked ringing second aortic sound. This occurring in an individual without hypertension and no peripheral arteriosclerosis is usually significant of the condition.

There comes, in connection with all valvular disorders, a condition which frequently is overlooked in general practice and that is the result of an infection of a previously damaged valve, generally known as subacute bacterial endocarditis. It is subacute

*Address by the President of the American Medical Association delivered before the Sixty-fourth Annual Session of the Colorado State Medical Society at Colorado Springs, September 22, 1934.

in its nature because it has a long course; it is bacterial because it is usually due to a pyogenic organism of milder virulence, frequently the non-hemolytic streptococcus viridans. It has a very peculiar long course in which the individual apparently is not very sick but carries a continuous fever. There is enlargement of the spleen. Because of the elevations or changes that occur upon the edges of the valve, embolic disturbances occur, and the appearance of these emboli in the kidney, in the spleen, in the cerebrum, create the characteristic symptomatology. Occurring under the skin, they produce the so-called petechial hemorrhages. The clinical picture of petechial hemorrhages, enlargement of the spleen, embolic phenomena, continuous fever, extending for weeks or months in an individual apparently not very sick, usually signifies the diagnosis. The demonstration of the particular streptococci in the circulating blood is further confirmatory.

In middle life there has been introduced a form of heart disease which is partly degenerative and to some extent of toxic origin. It is that form of heart disease which seems to be the result of long continued hyperthyroidism. The continuous tachycardia with increasing strain upon the heart, and the consequent hypertension, gradually produces myocardial damage with resulting signs of myocardial insufficiency or failure.

The fact that heart disease has become the leader in mortality rate in this country, that numerically it stands at the top, is well known, but the fact that the large increase in heart disease is observed after sixty years of age, and that practically two-thirds of all the heart cases die after sixty, indicates that it is a condition of later life. Thus it is a part of those changes incident to the later periods of life. It is to be assumed, then, that the background, pathologically and etiologically, occurs somewhere after the fourth decade. It comprises a number of conditions which are associated but not in any sense causative or definitely related, such as vascular hypertension, chronic renal disease, arteriosclerosis and coronary artery disease.

Considering first hypertension, it is a far cry from the first demonstration of blood pressure in 1731 by the English rector, Hales, who observed the flow of blood upward after constriction of an artery in a horse, to the present well-developed methods of sphygmomanometry. But since that time we have learned a great deal about the incidence of blood pressure at different age periods in normal and diseased conditions, and while much of this information has been of great value to us, as yet we know very little about the underlying causes or its real etiology. We recognize that heredity plays a great role. In any family history one may often trace through several generations a history of hypertension and its resulting conditions. So a family history, carefully taken, is one of the important features in the diagnosis of hypertension. There is no question that it occurs perhaps more frequently in certain races, that it is due at times to certain toxic substances, infectious or metabolic, but no one single cause has yet ever been demonstrated in all instances.

About twelve years ago it was my privilege to be, for a short time, with Sir James McKenzie when he was living at St. Andrews, and after being there for some time, in his somewhat familiar and brusque way, he caught the lapel of my coat and said, "Doctor, your country has gone crazy on blood pressure and you don't know a damn thing about it. Now, do you?" And I'm afraid that still holds good to a certain extent. Chronic renal disease is very closely associated with it, and we have come to think more of it as an arteriolar process with resulting degenerative changes, replacement fibrosis, and final contraction. We have more or less the clinical picture of a progressive chronic renal disease and associated closely with it is, of course, an increase in blood pressure and a hypertrophy of the heart, which then signifies potentially heart failure. The later resulting insufficiency of the myocardium from both chronic renal disease and hypertension, causes a condition usually recognized as hypertensive heart disease.

Arteriosclerosis is readily recognized. It

is more common among negroes and is peculiarly prevalent in certain vocations, particularly that of the coal miner who lives a long time under the ground. Herein we find it occurring at different ages, even as early as the second decade. More frequently it is associated with the ageing process and seems to be a part of the present strenuous civilization. Arteriosclerosis may likewise be associated with chronic renal disease, with hypertension, with myocardial changes, and localized as cerebral arteriosclerosis, so that in its train we can follow an apoplexy, an attack of uremia, coronary thrombosis, and arteriosclerotic heart disease with subsequent myocardial failure.

Chronic heart disease, as we see it today, is of course very intimately associated with changes in the coronary arteries and it is an interesting thing that with our recognition of coronary artery disease we have come to know a great deal more about the coronary circulation. A new chapter was written in internal medicine when Dr. James B. Herrick contributed his classic paper on "Coronary Thrombosis With Recovery" in 1912. He established a distinct clinical entity which has been confirmed and enlarged by a large number of American clinicians, being now so well established as to be easily recognized in its various forms at the bedside.

The history of angina pectoris is intimately associated with that of coronary artery disease. Angina pectoris was given its name by Heberden in 1768, who by 1801 had collected one hundred cases. William Jenner recognized angina pectoris, and so diagnosed the case of John Hunter, and the two of them fully established that sclerosis of the coronary arteries was the essential cause of angina pectoris. In 1809 Allen Burns attributed angina pectoris to an ischemia of the heart muscle, an anoxemia similar to claudication which had been previously described by neurologists and which is the accepted explanation of angina pectoris today. In the Harvey lectures of Osler in 1910 on angina pectoris, he clearly por-

trayed the acute and chronic forms of coronary artery disease as we recognize it today.

James B. Herrick in 1919 presented a clinical classification of coronary artery disease which I think can well be maintained today. He referred to four types, the first being that in which the patient dies suddenly, with cessation of respiration and heart action at the same time. The second class survives only a few minutes or a few hours and are usually seen by the physician in the death agony or often first seen by the coroner. The third type is most frequently observed clinically, of acute severe onset, with life maintained for a few hours, days, months and sometimes ending in recovery.

The acute coronary thrombosis is due to a sudden occlusion of one of the larger or main branches of either the right or left coronary artery. The clinical picture presents two main symptoms: a severe pain, often continuous, often occurring while at rest. It corresponds to the old term status anginosus, a pain that is unusually intense, cramp-like and difficult to control, most prominent over the precordial area, reflected to the left arm, side of the neck, also down towards the abdomen. The second main symptom is that of shock or collapse which manifests itself by a sharp drop in the blood pressure—from a systolic pressure of 200 down to 100 millimeters—and accompanied by the other symptoms of shock such as cold clammy skin, subnormal temperature and an expression of anxiety. Dyspnea may be a prominent symptom.

This is followed by the development of those symptoms incidental to infarction. If the location is near the outer surface, a pericardial friction rub may appear. Because of the large amount of area involved in the myocardium, a systemic reaction is noted in the form of leukocytosis and of fever. There are also associated gastrointestinal disturbances. In the past, deaths from coronary thrombosis were often attributed to acute indigestion, which of course is not acceptable any more, although the initial symptoms are often so marked. The nausea, vomiting, and

epigastric pain confuse the diagnosis. Recovery may take place to a certain extent by healing at the infarct area, or the individual may finally succumb to congestive heart failure.

We have learned a great deal in these cases as to the effect of arterial obstruction and resulting changes in the myocardial musculature that is of clinical value. A large infarction occurring in the left ventricle will naturally cause a sudden drop in systolic pressure. It also explains the characteristic changes recorded in connection with electrical responses of muscular contractions, and thus very definite electrocardiograms are recognized in the early stages of coronary occlusion, as the so-called Pardee curve, with later abnormal changes in the T wave as well as in the Q. R. S. complex which are now regarded as characteristic signs of the acute or chronic obstruction of the main coronary vessels. The resulting infarction may heal and be replaced by scar tissue; the extent of the infarction and resulting replacement fibrosis will be an indicator of the degree to which the heart is damaged and naturally produce later symptoms of varying degrees of myocardial insufficiency.

The fourth class to which Dr. Herrick referred includes the so-called milder types of angina, generally explained by the fact that only a small branch is involved. It is these milder types also that can be regarded as the so-called chronic form of coronary artery disease in which we may assume a gradual narrowing and final occlusion either by endarteritic changes or an occluding thrombus. It is this class of patients that present the recurrent anginoid symptoms, of pain with effort, distinguished from the pain due to acute occlusion which occurs usually at rest and is more prolonged. The lighter forms of pain are also more often due to a simple spasm of peripheral branch, and thus explain the palliative value of the nitrites

which have no purpose at all in an acute occlusion.

The clinical pictures of these several forms of coronary artery disease are now so well established as to permit ready recognition. The electrocardiograph is a distinct aid; the x-ray discloses signs of hypertrophy, but the real story is told best by the patient, and a careful analysis of the onset and resulting symptoms often establishes the diagnosis.

This is becoming the type of heart disease of later life and is closely associated with those conditions that are productive of arterial or vascular hypertension, of arteriolar or chronic interstitial renal disease and peripheral arteriosclerosis. Strange as it may seem, rheumatism plays a very minor role in the production of chronic degenerative heart disease. The same applies to syphilis.

Valvular heart disease at certain stages may present anginoid symptoms, but they are quite different from those which are a part of the chronic degenerative type of heart disease. All forms of heart disease, whether of valvular nature, due to a thyroid toxemia, or one of the degenerative type, inevitably are dependent for their circulatory balance upon the efficiency of the myocardium. When the myocardium begins to fail, then the clinical picture becomes more or less uniform. Congestive heart failure or visceral congestion is the same in all forms and presents a more or less common picture requiring practically the same kind of management.

The hope of the future must lie in our efforts to recognize earlier signs of the changes in the myocardium. There can be no question that when the chronic types of heart disease come under clinical observation there are already present well advanced anatomic changes that must have taken years to develop. It should therefore be possible, in that intervening period between the beginning of this process—whether it is an

exaggerated ageing process or due to some particular irritant, toxic or infective substance—and the time when it comes under clinical observation with well advanced anatomic changes to formulate a clinical syndrome that can be readily recognized.

Some of us have endeavored to outline a clinical picture to which the term myocardosis has been applied, but accepting that or not, there certainly are manifestations earlier that can be recognized. Among these the symptom of fatigue or exhaustion always will stand out. Circulatory fatigue manifests itself in various forms, in any of the tissues of the body, the extremities and the brain as well as in the heart muscle. Associated with fatigue are a series of digestive disturbances which have been referred to by Riesman as gastric masquerades. They are also of circulatory origin and are indicative of a lowered myocardium reserve.

Gradually there is produced the triad of symptoms which usher in heart failure, first described by Kauffman of Vienna. These are dyspnea, substernal distress, and palpitation. As that triad manifests itself, we have every indication that the myocardium has become affected. One of the earliest physical signs is an enlargement of the heart. I do not think we should underestimate what it means to determine whether a heart is enlarged. It is not an easy thing to do. Even the roentgenologist is at a loss sometimes to determine whether a heart is really enlarged. When a heart has begun to enlarge, it has already potentially begun to fail.

It is hoped by recognizing these earlier signs of myocardial disease that certain changes will be demonstrable that are now beyond our ken. That heart disease is becoming an important public health problem is illustrated by its increasing incidence as shown by mortality statistics. We have come to think of heart disease as constantly

on the increase, but it is evident that the increase is mainly after forty years of age and largely after sixty years. The rates started with 158 in 1920 and rose to 214 per hundred thousand in 1930 in the registration area, yet under the age of 5 it has made a reduction of about 34 per cent; from 5 to 9 of about 27 per cent; from 10 to 19 of about 23 per cent. This shows that the intensive public health work that has been done with reference to prevention of heart disease, with very particular reference to rheumatism and other infectious diseases of childhood and young life, is reflected in this marked reduction and is therefore very encouraging.

The geographic distribution of heart disease varies greatly. The populated areas along the Atlantic Seaboard and along the Lakes region of course have the largest number. New York has 302 per hundred thousand; Massachusetts, 307; Ohio, 235; Indiana, 248; while Oklahoma has the least, 103. Colorado has 201. It seems that in the states where tuberculosis prevails there is the lesser percentage or ratio of heart disease.

The evident increase of heart disease may be explained by several facts: (1) More people are living to the heart disease age. (2) A greater number recover from the infectious diseases causative of heart disease. (3) Many who survive are maimed by some form of heart affection. (4) The influence of the ageing process and greater incidence of degenerative changes in the later decades of life.

The control of heart disease opens up new possibilities in the field of preventive medicine. With increasing knowledge of the sequence of anatomic and physiologic changes in heart disease a more logical plan of treatment has been developed, and likewise a more rational, optimistic viewpoint as regards prognosis has resulted.

A MOULAGE PROCESS FOR THE PRESERVATION OF SURGICAL SPECIMENS*

DENVER

NOLIE MUMEY, M.D.

The preservation of rare surgical specimens in natural color has been very difficult for the pathologist and surgeon. The time, trouble, and expense of keeping them has been a factor in not making a permanent record of interesting pathological tissues.

After a great deal of experimenting with different kinds of waxes and formulas, we advocate the use of a preparation which has been successfully used by others. Specimens can be kept in their natural color without any change in size or shape. The method is inexpensive and practical for office use.

Negative

It is necessary to first obtain a cast or negative from the tissue. This can be done

by using plaster of paris—a good quality of dental plaster which does not set too quickly will answer the purpose. The plaster is mixed in a rubber mixing bowl and poured over the specimen where it is allowed to harden. The first coat of plaster should be mixed thin to get good detail. When it has hardened, the specimen is removed (it may be lifted out of the bottom of the mould), and the inside of the mould is coated with liquid albolene which aids in separating the wax positive from the plaster negative. Gelatin glue is also a good medium for obtaining a cast with minute detail. Another ideal negative mass is the one developed by Paul Gross¹.

Positive

The positive is made from the wax preparation which is heated to a liquid and then poured into the negative mould. Gauze reinforcement reduces the amount of wax to a minimum. The positive wax cast is removed from the negative plaster cast by making saw cuts into the negative and carefully breaking it loose with a hammer.

Coloring

Color is applied, using oil paints and turpentine, or it may be added to the wax in concentrated form. After the specimen has been painted and given two coats of white shellac it is then ready for mounting.

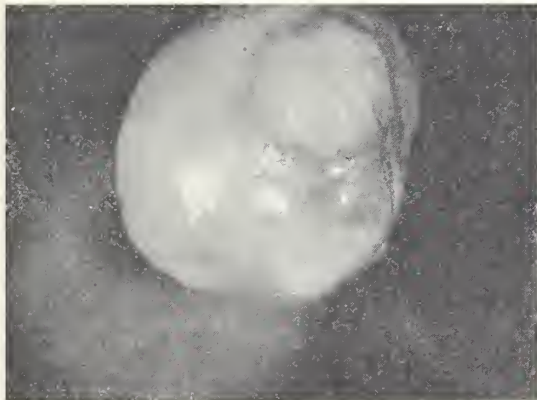


Fig. 1. Wax model of dermoid cyst of ovary. Mounted in glass-topped box.

¹"A new negative mass for making accurate plastic reproductions." *Archives of Pathology*, Dec., 1933, Vol. 16, pp. 869-872.



Fig. 2. Different types of fingers made of wax using plaster negative.

Mounting

We have used two different methods for mounting our specimens. The smaller ones are placed in glass-topped boxes while larger ones are mounted on boards by means of tacking the gauze bandage which is embedded in the bottom of the model to the board. They are then draped with black sateen and labeled.

Formula

We have tried various kinds of wax, singly and in combination, such as: bees-

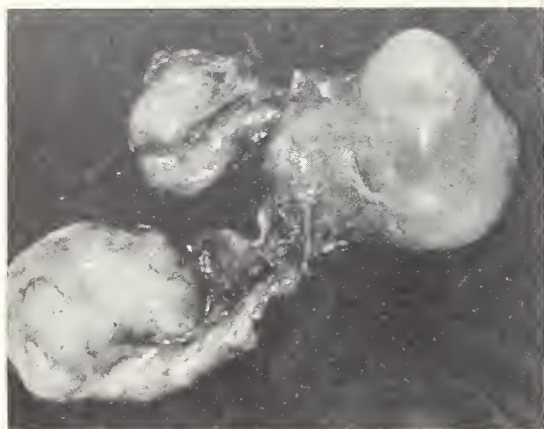


Fig. 3. Mounted wax model of fibroid uterus with hydrosalpinx.

wax, paraffin, caranuba wax, and many others that are on the market, but we have found the cheapest and most satisfactory to be the one developed by Schamberg and Wallis². This, with some modification, is the one we recommend:

White beeswax	8 oz.
Paraffin	8 oz.
(High melting point 56-58°)	
Cornstarch	6 oz.
Talcum powder	6 oz.
Spermaceti	1 oz.
(Yellow beeswax may be added for color)	

The wax and paraffin is melted before adding the starch and powder.

Equipment

1. Rubber mixing bowl.
2. Spatula.
3. Double boiler (small size).

4. Oil paints.
5. Small paint brushes.
6. White shellac.

The above is all that is needed with the exception of scales and other equipment usually found in the office.

Summary

1. A process for reproducing surgical specimens in wax is described.
2. A cheap, easy, and effective way of keeping interesting tissues in natural colors is available to any physician.
3. It affords a permanent record for rare pathological specimens.

PUBLIC HEALTH NOTES

Pasteurized Milk

In an article in the September, 1934, American Journal of Public Health on "The Nutritional Aspects of Milk Pasteurization," Dr. E. V. McCollum of Johns Hopkins University states:

"Since the effect of pasteurization on the food value of milk is too slight to be apparent even in specially designed experiments, and is not apparent in observations on children living under ordinary American conditions, there is no valid argument which can be brought forward in support of the marketing of raw milk for the general population. It is granted that certified milk is as safe as any ordinary foods, but if the optimum amount of milk is to be consumed by the public, the price must be made as low as is consistent with the maintenance of high quality. The only method of accomplishing this objective, which has the full approval of public health officials and bacteriologists, is pasteurization of the milk supply.

"It seems strange indeed that, when we accept so generally the cooking of most of our foods, there should still remain in certain areas a serious objection to the heat treatment of milk involved in pasteurization. The menace of bovine tuberculosis to the health of children is so great that universal pasteurization would be imperative if only for the prevention of the spread of this disease alone among children."

²Schamberg, J. F., and Wallis, Frank: "Army Medical Museum Exhibit of wax models of cutaneous disease, with remarks upon the use of wax models and their preparation." Trans. Coll. Phys., Phila., 1901, xxvii, 36.

The Heart Disease Paradox

In this country more cases of heart disease are being prevented each year—yet more deaths are charged to the heart than ever before. Despite seeming contradiction, those are the facts. Better protection of children against diseases which are often followed by heart trouble means that fewer young hearts are being exposed to injury. Better treatment of hearts temporarily damaged by the “poisons” of acute infections often prevents such damage from becoming permanent. Better control of venereal and other diseases that damage hearts has been another important factor in reducing the death rate from heart disease at all ages up to 45 years.—Bulletin, Metropolitan Life Insurance Co.

Typhoid Mortality

The twenty-second annual report of the American Medical Association on the death rates from typhoid in ninety-three cities of the United States has just been published. It will be of interest to physicians of Colorado to note that the death rate in Denver for this disease increased from 0.7 per 100,000 of population in 1932 to 2.7 in 1933, but in this connection it should be remembered that the practice of including in the rates for large cities, deaths of non-residents was a very important one. Many of the typhoid infections treated in Denver have been incurred in country districts. The record, therefore, may be considered satisfactory in view of the mortality statistics in the period 1906 to 1910 when Denver had a death rate from typhoid of 31.5 per 100,000.

Diphtheria Death Rate Still High

“There were four states in 1932 which registered diphtheria death-rates in excess of 13 per 100,000; and in every one of them the 1932 figure was much higher than that recorded two years previously. In New Mexico, which had the highest diphtheria mortality rate in the country, the 1932 figure was actually 34 per cent higher than prevailed for the United States ten years previously. In Kentucky, West Virginia, and

Oklahoma, the diphtheria death-rate of 1932 was not far from the average throughout the country ten years ago, despite the fact that since that time there has been a reduction of nearly 70 per cent in the diphtheria mortality-rate of the country at large.”

“It is difficult to understand how whole states and certain cities can justify their administration of the public health facilities to permit the continuance of high and increasing diphtheria rates at the very time when a marked reduction is going on in the country at large, and all over the civilized world. Diphtheria would soon be banished altogether if immunization by toxin-antitoxin or toxoid were extended to include all susceptible children.”—Bulletin, Metropolitan Life Ins. Co.

Measles Epidemic Broke Record

Measles has broken a twenty-one year record. The number of cases reported each week has been higher than at any time since the United States Public Health Service began keeping records of this disease in 1912.

The epidemic has just begun to abate, less than 30,000 cases being reported weekly now. At the peak of the epidemic, during the first week in April, 35,000 were reported by state health officials to the United States Public Health Service in Washington, D. C.

Immunization With Alum Precipitated Tetanus Toxoid

Drs. Bergey and Etris, of the Department of Research in Biology, The National Drug Co., Philadelphia, Pa., assert that the points of special importance in the use of alum precipitated tetanus toxoid are: (1) The induction of an active immunity in three to six months. (2) The absence of either local or general reaction from the dose of alum toxoid, except slight local reaction in occasional individuals who are highly sensitive to the proteins contained in culture media. (3) Absence of danger of sensitizing the individual to horse serum proteins such as may occur from repeated prophylactic doses of tetanus antitoxin when used for prophylaxis following injuries.

BOOK REVIEWS

Electrocardiography. By Chauncey S. Maher, B.S., M.D. Assistant Professor of Medicine, Northwestern University and the Montgomery Ward Medical Clinics; Attending Internist at the Cook County Infirmary and the Cook County Hospital and the Passavant Memorial Hospital, Chicago, Illinois. Baltimore: William Wood & Company, 1934.

Many physicians were graduated before the electrocardiogram came into general use and therefore have only a meager knowledge of the subject of electrocardiography. This book is written with the intention of supplying a need of the general practitioner, the medical student, and the specialist exclusive of the cardiologist. It is eminently fitted for the task of bringing the subject of electrocardiography to these groups and is also a valuable addition to the cardiologist's library.

The 250 pages contain 45 full page descriptive diagrams, 95 electrocardiograms with detailed interpretations, and radiograms of five types of heart. There are separate chapters on the effects of drugs on the electrocardiogram and on the electrocardiograms in clinical syndromes with a good discussion of the changes produced by them.

MAURICE KATZMAN.

A Text-Book of Neuropathology. By Arthur Weil, M.D., Associate Professor of Neuropathology, Northwestern University Medical School, Chicago. Illustrated with 260 engravings. Philadelphia: Lea & Febiger. 1933.

Although several texts on this subject have appeared in recent years, Weil's is a welcomed addition. Much of our knowledge of the histopathology of the central nervous system has been gained through the newer staining methods devised by the Spanish school of histopathologists. One chapter is devoted to staining methods found useful to the author. If one remembers that post mortem changes occur in the central nervous system with "explosive suddenness," he will realize what a distorted picture is revealed by the microscope and how essential it is to work with properly fixed material. This is well illustrated in the chapter dealing with changes through autolysis and fixation. The author's treatment of the subject matter is brief and to the point. One is not disturbed by constant reference to the literature although the author draws freely from it. To the neurologist it will be found both interesting and instructive and will aid him immeasurably in his attempt to correlate signs and symptoms with the underlying pathology. The illustrations comprising 260 are beautiful reproductions and are actually helpful. Classification of tumors is that followed by Bailey.

A. W. FRESHMAN.

Collected Papers of the Mayo Clinic and the Mayo Foundation, Vol. 25. Edited by Mrs. Maude H. Mellish-Wilson and Richard M. Hewitt, B.A., M.A., M.D. Philadelphia and London: W. B. Saunders Company, 1934.

This latest collection of the Mayo papers—eagerly awaited by progressive exponents of medicine all over the world—lives up to its standard.

The foreword offers a fine memorial tribute, by Doctor William J. Mayo and Louis B. Wilson, to Mrs. Mellish, who initiated the annual compilation of the Mayo Staff Contributions.

The volume comprises the following clear-cut sections: Alimentary Tract, Genito-Urinary Organs, Ductless Glands, Blood and Circulatory Organs, Skin and Syphilis, Head, Trunk and Extremities, Chest, Brain, Spinal Cord and Nerves, Radiology, Anesthesia and Gas Therapy, Technic, Miscellaneous.

In accordance with preference shown by readers, material is directed to the general practitioner, surgeon, and the diagnostician.

Of the 443 papers assembled in 1933, 144 are complete, 21 are condensed, 40 are abstracted, and 268 are referred to merely by title.

The particular merit of practically all these papers, of course, lies in the fact that they are prepared by men who have had opportunity to observe a large volume of material in the fields of which they write. And while space does not permit the review of all exceptional contributions a few call for special comment.

In the section devoted to the Alimentary Tract, a number of excellent articles appear on the colon; also, in the space given to the Genito-Urinary Organs, several in the field of Urology, specifically, on Excretory Urography, the Transurethral Treatment of Prostatic Hypertrophy, and the Ketogenic Diet in the Treatment of Urinary Infections.

It seems to me that little space is given to Roentgenology in proportion to the relative importance of the field and the amount of work done in this department at the Mayo Clinic. The book as a whole, however, is so practical and of such wide appeal that it conveys at once to the reader, regardless of his specialty, the entire trend of medicine throughout the past year.

R. K. DIXON.

Spinal Anesthesia, Technic and Clinical Application. By George Rudolph Vehrs, M.D. Salem, Oregon. Illustrated. C. V. Mosby Co., 1934.

Dr. Vehrs' book on spinal anesthesia can be recommended to everyone interested in this subject. It begins with a brief account of the historical background of spinal anesthesia and brings its progress up to the present time. The cerebrospinal circulation, effects on heart and respiration and general circulation are discussed very clearly. The various technics for successful anesthesia are reviewed with a brief discussion of each. The book is full of diagrams illustrating the nerve block obtained by various levels of injection. The author reiterates what is generally known by those using spinal anesthesia that, in the proper hands, it is safer than other types of anesthesia.

CLYDE J. COOPER.

Demonstrations of Physical Signs in Clinical Surgery. By Hamilton Bailey, F.R.C.S. (Eng.). Surgeon Royal Northern Hospital, London; Surgeon Battersea General Hospital; Consultant Surgeon, Essex County Council; Late Assistant Surgeon, Liverpool Royal Infirmary; Surgical First Assistant, London Hospital. Fourth Edition, Revised and Enlarged with 325 Illustrations, some of which are in color. Baltimore: William Wood & Company.

This volume is one of the most practical books on diagnosis ever published. The profuse illustrations, many in color, present such definite impressions upon the reader that it is more than worth the price of the book to look through and study the pictures. It is thus of great educational and practical value both as a text and as a reference. The paper and printing are of foremost quality.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

SIXTY-FOURTH ANNUAL SESSION, COLORADO STATE MEDICAL SOCIETY

Colorado Springs, September 19, 20, 21, 22, 1934

PROCEEDINGS OF THE HOUSE OF DELEGATES

MINUTES IN DETAIL*

First Meeting of the House of Delegates
8 p. m., September 19, 1934

President Webb: "Gentlemen, we will come to order. I will ask Mr. Sethman to read the official call."

Mr. Sethman read the official call.

"I will next call on Dr. Bouslog, Chairman, to read the report of the Committee on Credentials."

Dr. Bouslog: "Your Committee on Credentials reports that the credentials as printed in the Handbook are correct with the following exceptions:

"That neither the delegate nor alternate for Las Animas County is able to attend and Dr. John R. Espey has been certified to act as delegate for that county;

"Dr. Claude E. Cooper has announced his resignation from the House of Delegates from the Denver delegation."

REPORT OF THE COMMITTEE ON CREDENTIALS

August 25, 1934.

To the House of Delegates of the Colorado State Medical Society:

The constituent societies are entitled to representation in the House of Delegates at the Sixty-fourth Annual Session as follows, under the provisions of Chapter V of the By-Laws:

Society—	Membership on Dec. 31, 1933	Number of Delegates
Arapahoe	8	1
Boulder	38	2
Chaffee	8	1
Crowley	4	1
Delta	17	1
Denver	512	21
El Paso	94	4
Fremont	17	1
Garfield	13	1
Huerfano	10	1
Kit Carson	4	1
Lake	5	1
Larimer	37	2
Las Animas	17	1
Mesa	17	1
Montrose	6	1
Morgan	12	1
Northeast Colorado	19	1
Northwestern Colorado ..	13	1

*An index to the Minutes to the House of Delegates will be found on Page 415. With the consent of the respective speakers, the more lengthy discussions before the House of Delegates have been abstracted.

Otero	24	1
Prowers	13	1
Pueblo	66	3
San Juan	14	1
San Luis Valley	14	1
Weld	46	2
Totals	1,028	53

Reductions in membership during 1933 resulted in the loss of one delegate each by the Denver Society and the Otero County Society.

Since December 31, 1933, the date upon which representation in the House at this Session is apportioned to the constituent societies, three new constituent societies have been organized and issued temporary charters under the authority of the Board of Trustees. These are the Adams County Medical Society, organized Feb. 3, 1934, with a charter membership of eight; the Clear Creek Valley Medical Society, organized Feb. 1, 1934, with a charter membership of eight representing the counties of Clear Creek, Gilpin, and Jefferson; and the Washington and Yuma Counties Medical Society, organized Jan. 30, 1934, with a charter membership of fifteen.

Your Committee recommends that by vote of the House one delegate be seated from each of these three new societies.

Your Committee further recommends that by vote of the House permanent charters be issued at this session to the new societies as follows:

Adams County Medical Society: J. C. McCann, President; J. C. Stucki, Secretary.

Clear Creek Valley Medical Society: R. G. Howlett, President; O. R. Sunderland, Secretary.

Washington and Yuma Counties Medical Society: C. J. Bennett, President; L. D. Buchanan, Secretary.

Your Committee has noted with pleasure in the records of the Executive Secretary that most of the constituent societies are in 1934 showing an increase in membership over 1933. A little added effort on the part of the officers of such societies as El Paso, Otero, Pueblo, San Luis Valley, and Weld between now and the end of this calendar year could increase their respective memberships sufficiently to give each of these societies an added seat in the House for the 1935 Session.

Subject to the will of the House as to the seating of delegates from the three new Societies, your Committee presents the following as the list of properly accredited delegates and alternates to constitute the original roll call of the House for the Sixty-fourth Annual Session:

Society	Delegates	Alternates
Adams	James W. Wells	Walter F. Peer
Arapahoe	W. C. Crysler	H. H. Alldredge
Boulder	John Andrew	W. P. Woods
"	W. K. Reed	M. W. Cooke
Chaffee	J. P. McDonough	Geo. H. Curfman
Clear Creek Valley	O. R. Sunderland	R. G. Howlett

<i>Society</i>	<i>Delegate</i>	<i>Alternate</i>
Crowley	W. M. Desmond	George M. Baker
Delta	A. C. McClanahan	
Denver	H. I. Barnard	George B. Kent
"	K. D. A. Allen	G. M. Blickensderfer
"	H. R. McKeen	J. E. A. Connell
"	H. I. Laff	John B. Davis
"	William H. Halley	E. R. Mugrage
"	Glen E. Cheley	H. J. Corper
"	Duval Prey	Arnold Minning
"	Thad P. Sears	H. J. Freeland
"	R. W. Danielson	Leo V. Tepley
"	G. Heusinkveld	R. M. Shea
"	Geo. B. Packard	James A. Philpott
"	James M. Shields	P. W. Whiteley
"	J. G. Ryan	Kemp G. Cooper
"	D. H. O'Rourke	R. H. Schroeder
"	D. W. Macomber	Maurice Katzman
"	J. M. Foster, Jr.	J. A. Schoonover
"	B. B. Jaffa	
"	W. B. Yegge	John R. Evans
"	C. H. Darrow	A. J. Chisholm
"	James J. Waring	W. R. Waggener
"	R. H. Verploeg	E. G. Faber
El Paso	W. A. Campbell, Jr.	H. C. Goodson
"	W. K. Hills	H. B. Beeson
"	D. A. Vanderhoof	L. R. Allen
"	M. O. Shivers	L. A. Miller
Fremont	R. E. Holmes	E. C. Webb
Garfield	R. B. Porter	W. R. Tubbs
Huerfano	J. M. Lamme	W. S. Chapman
Kit Carson	W. L. McBride	C. J. Keller
Lake	F. N. Cochems	A. J. Bender
Larimer	W. B. Hardesty	T. C. Taylor
"	J. D. Carey	S. A. Joslyn
Las Animas	John R. Espey	
Mesa	G. C. Cary	H. H. Zeigel
Montrose	Isaiah Knott	F. G. Didrickson
Morgan	Ira J. Clark	Paul Hildebrand
Northeast	J. W. Kinzie	J. E. Naugle
Northwestern	B. M. Cook	A. C. Sudan
Otero	R. M. Fulwider	Ralph S. Johnston
Prowers	Lanning E. Likes	F. E. Casburn
Pueblo	Harold T. Low	J. F. Snedec
"	G. E. Rice	C. N. Caldwell
"	R. C. Robe	J. S. Norman
San Juan	H. A. Lingenfelter	E. E. Johnson
San Luis Valley	O. P. Shippey	C. A. Davlin
Washington-		
Yuma	A. P. Flaten	L. W. Blanchard
Weld	Burgett Woodcock	G. E. Nelson
"	O. E. Benell	W. A. Schoen
The President	Gerald B. Webb	
The Constitu-		
tional Sec'y	John S. Bouslog	
The Treasurer	Leo W. Bortree	

Your Committee is ready to act upon any question of credentials which may arise before this Session.

Respectfully submitted,

JOHN S. BOUSLOG, Chairman,
HAROLD T. LOW,
JOHN A. SEVIER.

President Webb: "Mr. Sethman will now take a roll of the House, according to the Credentials Committee report."

The Executive Secretary then called the roll from the report of the Committee on Credentials and announced forty-seven accredited delegates present. The President stated there was a quorum present.

Dr. Bouslog moved adoption of the report of the Committee on Credentials; seconded by Dr. Jaffa and carried.

Dr. Bortree: "I move that the minutes of the last annual meeting be approved as printed in the December, 1933, issue of 'Colorado Medicine.'"

The motion was seconded by Dr. Allen and carried.

Dr. Bouslog: "Mr. President, I move that a delegate be seated from each of the three new constituent societies that have been formed since our last meeting, and also that their charters be approved by this House."

The motion was seconded by Dr. McKeen and carried.

President Webb: "I have no special announcements to make to you but I have committees to appoint. The reference committees will be as follows:

Reference Committee on Reports of Officers: R. S. Johnston, Chairman; James M. Shields*, O. E. Benell.

Reference Committee on Reports of Committees: A. C. McClanahan, Chairman; John R. Espey, D. A. Vanderhoof.

Reference Committee on Miscellaneous Business: J. D. Carey, Chairman; J. W. Kinzie, George B. Packard.

Reference Committee on Audits and Appropriations: George H. Curfman, Chairman; W. B. Yegge, R. B. Porter, L. W. Bortree, ex officio.

Dr. Bouslog then presented the report of the Board of Trustees, as follows:

REPORT OF THE BOARD OF TRUSTEES

August 30, 1934.

To the House of Delegates of the Colorado State Medical Society:

The Board of Trustees met quarterly on the call of the President, and on several other occasions conferences of two or more members were held to pass upon minor matters.

At the first meeting the Board confirmed appointments made by the President and President-elect to all standing and special committees, and changed the name of the Special Committee on Cooperation with the Board of Health to Special Committee on Public Health. The Board approved the holding of a Spring Postgraduate Clinic session in Pueblo in the name of the State Society. The Board confirmed a resolution of the Committee on Medical Economics concerning hospital bed capacity and ordered publication of the same in the February issue of the journal.

At the second quarterly meeting the Board issued temporary charters to three new constituent societies pending final action by the House of Delegates, viz: the Washington and Yuma Counties Medical Society, The Clear Creek Valley Medical Society, and The Adams County Medical Society. The Board approved a special trip to the A.M.A. Headquarters at Chicago by the Executive Secretary, on behalf of the Committee on Medical Education and Hospitals.

At the third quarterly meeting it was noted that the paid membership of the Society had in nine months surpassed the twelve-month total of the preceding year by thirty members, in spite of many delinquents in the Denver County Society. At this meeting several authorizations for special work were granted to the Committee on Medical Economics, which are discussed in the report of that Committee.

At the fourth meeting reports of committee activities were received showing that a total of one hundred and seventy-seven meetings of State So-

*See Page 383 for correction.

ciety committees had been held to date since the last Annual Session.

At each of the four meetings the Treasurer and Executive Secretary submitted quarterly financial reports which were investigated and discussed in detail, and were approved by vote of the Board.

Early in the year it became evident that special expenditures would be necessary to protect members of the Society from economic loss in connection with the administration of the federal relief agencies, especially the C.W.A. and the F.E.R.A. There was considerable danger both to the maintenance of a reasonable level of fees and to the principle of free choice of physician, as the report of the Economic Committee will explain in detail. Therefore the Board of Trustees had to authorize the disbursing officers to exceed the budget in waging necessary campaigns for the Economics Committee if the Society was to be protected. The Board is pleased to state that the spending of this extra money has brought more than \$60,000.00 back to the doctors of Colorado who are members of this Society.

The Board has prepared what it believes to be a proper budget for the ensuing fiscal year, the same being attached as a supplement to this report.

Respectfully submitted,

BOARD OF TRUSTEES,
By JOHN S. BOUSLOG,
Constitutional Secretary.

SUPPLEMENT TO THE REPORT OF THE BOARD OF TRUSTEES

Budget for the Fiscal Year of 1934-1935

RECEIPTS—

Dues, resident	\$10,800.00
Dues, non-resident	100.00
Space Rentals	250.00
Interest	250.00
Publications	8,500.00
	\$19,900.00

DISBURSEMENTS—

General Fund:

Salaries	\$3,570.00
Rent	330.00
Telephone and telegraph	400.00
Taxes	60.00
Insurance	10.00
Audits, bonds and banking charges	170.00
Travel	800.00
Mailing & supplies	400.00
Scientific work & exhibits	460.00
House of Delegates	200.00
Guests & entertainment	200.00

\$ 6,600.00

Publication Fund:

Salaries	\$3,050.00
Printing & mailing	6,200.00
Supplies & promotion	250.00
Advertising commissions	2,000.00
Collection expense	100.00

\$11,600.00

Medical Defense Fund

25.00

Library Fund

500.00

Education Fund:

Salaries	\$ 800.00
Committee on Public Policy	300.00

\$ 1,100.00

\$19,825.00

Budget surplus 75.00

\$19,900.00

SUPPLEMENT TO THE REPORT OF THE BOARD OF TRUSTEES

September 19, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Board of Trustees has reviewed carefully the minutes of the Sixty-third Annual Session in connection with work done by the Society during the year just closed in order to ascertain whether or not all instructions issued by the House at the last Annual Session were duly put into effect.

In the opinion of the Trustees, all instructions of the House issued at the last Annual Session were duly effected except the following:

The House instructed the Library to submit monthly to Colorado Medicine a list of the books and periodicals received during the previous month, for publication to the membership as an encouragement to greater use of the Library. This has not been done to the knowledge of the Board of Trustees.

A resolution of the House in connection with the establishment of the Committee on Cancer Education read in part as follows:

"... and be it further Resolved, That the constituent societies are hereby directed to co-operate with said Committee to the extent of arranging the necessary program time, either by individual societies or by groups of societies, for the presentation of said symposia."

Your Board of Trustees notes in the report of the Committee on Cancer Education that several constituent societies failed to carry out this order of the House.

Last year the House referred to the Public Policy Committee a resolution proposed by Dr. Minig, Delegate, calling upon the governor to accept the offer of the Agnes Memorial Sanitarium as a gift to the state for use as a state tuberculosis sanitarium, with instructions that the committee investigate and act upon the said resolution with a recommendation to this Annual Session. Your Board of Trustees is not aware of any investigation or action having been taken on this subject by the Committee on Public Policy.

Attached is a resolution* relating to the Past Presidents of the Society, the adoption of which your Trustees recommends.

The Executive Secretary was excused by order of the Trustees from attendance at the Sixty-fourth Annual Session from noon Thursday until the opening of the Saturday session, in order that he might attend the Annual Conference of State Medical Society Secretaries in Chicago.

The above reported matters constituted the business of the Trustees at its final meeting of the year, on September 19, 1934.

Respectfully submitted,

THE BOARD OF TRUSTEES,
By JOHN S. BOUSLOG.

President Webb: "The report of the Board of Trustees will be referred to the Committee on Reports of Officers, except the Budget, which we refer to the Committee on Audits and Appropriations.

"On that first Committee I appointed Dr. James M. Shields. Dr. Shields is not here, and I will appoint Dr. Barnard to take his place.

"Is there any discussion of any of these reports you wish to make as we go along?"

Dr. Waring: "I was not present at the last annual meeting of this State Medical Society and it was not brought to my attention that the Society

*See Page 400.

desired that notice should be sent every month to 'Colorado Medicine' about the purchasing of books for the State Society library; consequently, such a report was not rendered.

"As Library Director, I wish to express my regret. Now that it has been brought to my attention, I will see that it is done regularly and monthly."

President Webb then called on Dr. Crook to present the report of the Board of Councillors, as follows:

REPORT OF THE COUNCIL

August 27, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Board of Councillors, during the past year, had only one major problem called to its attention for its consideration and action, that being offensive advertising of certain institutions in the state.

In the absence of Dr. W. W. Crook, Chairman, Dr. George D. Andrews presided. Evidence was presented of unethical practices in certain institutions. Since the Board of Councillors had no jurisdiction over these institutions, that being a part of the work of the Hospital Association, the following resolution was unanimously adopted to cover such features as come under this Society's jurisdiction:

"Be it Resolved by the Board of Councillors of The Colorado State Medical Society:

"That advertising to or solicitation of the laity, by any group, clinic, hospital, sanatorium of related institution; or by any corporation, association, society or other organization, educational, religious or otherwise, engaged in the care of the sick, except as authorized by the Council of this Society or the Board of Censors of the interested Constituent Society, shall hereafter be construed as equivalent to advertising and solicitation by the physicians employed by or associated in any professional capacity with the offending institution, and shall subject such physicians to discipline under the provisions of Chapter XIV of the By-Laws of this Society for breach of the Code of Ethics.

"Be It Further Resolved;

"That this Resolution shall take effect and be in force from and after its publication in the February, 1934, issue of Colorado Medicine."

Since the adoption of the above resolution, no instance requiring its enforcement has come to the attention of the Council. However, a situation requiring such discipline might arise at any time. Officers of the American Medical Association have generously commended our Society upon the stand taken in the adoption of this resolution, but have advanced a question as to the legality of discipline under such a resolution unless it be incorporated into the Society's By-Laws. Should the House of Delegates approve the principles of this resolution and wish to continue them in full force and effect, your Councillors suggest that they be made the subject of an added section to Chapter XIV of the By-Laws.

Councillors Lingenfelter and Lockwood took an active part this year in the organization of three new constituent societies.

Respectfully submitted,

GEORGE D. ANDREWS, Acting Chairman.

SUPPLEMENTARY REPORT OF THE COUNCIL

September 19, 1934.

To the House of Delegates of the Colorado State Medical Society:

At its annual meeting held on this date, your Council has further considered the resolution referred to in our regular report and has instructed the Executive Secretary to present, on our behalf, an amendment to the By-Laws as suggested in the earlier report.

An informal complaint that had been registered with the Council was considered and adjusted to the satisfaction of the Council without the need of formal action.

The Council announces the election of Dr. Clyde T. Knuckey of Lamar as its Chairman for the ensuing year.

W. W. CROOK, Chairman.

The President referred this report to the Reference Committee on Reports of Officers and called on Dr. Bouslog to present the report of the Constitutional Secretary, as follows:

REPORT OF THE CONSTITUTIONAL SECRETARY

August 22, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Constitutional Secretary has acted largely in the capacity of a consultant to the Executive Secretary during the past year. Your Constitutional Secretary has conducted very little of the routine of the Executive Office except on a few occasions during the absences of the Executive Secretary from the City or State, and has visited as many of the County Societies with the Executive Secretary as time would permit. Numerous conferences have been held with the Executive Secretary chiefly regarding professional matters and formation of the new county societies. Most of the endeavors of the Constitutional Secretary have been concerned with his membership on the Board of Trustees, Committee in Public Policy, Advisory Committee to the School of Medicine and with his chairmanship of the Committee on Credentials. The activities of these committees will be covered in their individual reports.

The numerous demands by the various committees and work on various federal problems could not have been accomplished this year without our efficient Executive Secretary's office.

Respectfully submitted,

JOHN S. BOUSLOG.

The President referred this report to the Reference Committee on Reports of Officers, and called on Mr. Sethman to present the report of the Executive Secretary, as follows:

REPORT OF THE EXECUTIVE SECRETARY

September 6, 1934.

To the House of Delegates of the Colorado State Medical Society:

The past year has been the most successful in organization achievement that your Executive Secretary has witnessed, and at the same time has been a most exacting year from every organizational viewpoint. Reports of the several committees give all necessary details of the year's work; therefore this report will comment upon them no more than to point out certain highlights and to urge that all reports be read with great care.

An informal index of the Society's principal accomplishments during the year follows:

Substantial increase in membership, the first increase since the depression began. (See first supplement to this report.)

Successful organization of three new constituent societies. (See reports of Council and Committee on Credentials.)

Fees in excess of \$60,000.00 paid by federal government to members of the Society on free choice of physician basis, largely through efforts of the Society. (See report of Committee on Medical Economics.)

Unity strengthened; loyalty of constituent societies and general membership to drastic actions of State Society, increased more than the most optimistic dared predict. (See report of Committee on Medical Economics.)

Federal recognition of organized medicine obtained, for advising bureaus, such as C.W.A. and F.E.R.A., which dispense medical services. See report of Committee on Medical Economics.)

Closer cooperation than ever before with A.M.A. in guiding governmental activities and in strengthening ethical standards. (See reports of A.M.A. Delegates, Council, Trustees, Committee on Medical Economics, and editorials in last three issues Colorado Medicine.)

Increased activity in postgraduate work. (See reports of committees on Postgraduate Clinics and Cancer Education.)

The best year of the last three in organization finances despite unprecedented demands for emergency expenditures. (See report of Treasurer.)

Interest and effort in committee work beyond any year in the Society's history. (See tabulation below.)

Your Executive Secretary attended all but six of the following tabulated list of officers' and committees' meetings held to date since the last Annual Session:

Board of Trustees	4
Council	2
Committees:	
Credentials	1
Scientific Work	21
Arrangements	9
Public Policy	8
Publication	7
Medical Defense	14
Medical Education and Hospitals	2
Library and Medical Literature	1
Cooperation with Allied Professions	4
Medical Economics	51
Postgraduate Clinics	4
Military Affairs	1
Advisory to School of Medicine	12
Cancer Education	4
Nursing Education	5
Public Health	13
	193

The above total of 193 compares with 108 in 1932-1933 and with 34 in 1931-1932, the latter being the last non-legislative year and thus the one with which to make the fairer comparison. The tabulation itself should be strong evidence of the devotion committeemen have given to the welfare of their Society and its members. A few other meetings of which the Executive Secretary did not learn may have been held, and several additional ones are under call for the time yet remaining before the Annual Session.

Your Executive Secretary attended meetings other than the above as follows in the past year:

Constituent societies visited, 21.
 Constituent society meetings attended, 43.
 Outside Colorado, attended:
 A.M.A. Annual Session, Cleveland.
 State Secretaries' Conference, Chicago.
 Wyoming State Medical Society Annual Session, Casper.
 Special A.M.A. conference, Chicago. (See report of Committee on Medical Education and Hospitals.)

The customary secretarial duties, general correspondence, management of Colorado Medicine, and usual travel in visiting county societies were carried out as in previous years. Additional work

and travel, under the direction of the Trustees and appropriate committees, were necessitated by the federal government's entry into medical fields through the C.W.A. and F.E.R.A., by the organization of the new societies and revival of certain existing societies that had been rather inactive, and by the inauguration of the five-year program of cancer symposia. Your Executive Secretary endeavored to minimize the increase in travel expense by arranging his visits to county societies to coincide with the trips of the cancer symposium teams, and thus make the Society's travel dollar do double duty.

For the coming year, your Executive Secretary can predict no decrease in the need for intense committee activity and vigilant organization work. Governmental activity in medical fields is still on the increase, and a regular session of the state legislature is but a few months away. Fortunately, the increase of complex problems is apparently being matched by an increasing appreciation of the inability of individuals to cope with them and a thus increasing appreciation of the value of medical organization. This indicates that if we work for it, we may reasonably expect a further gain in membership in the coming year.

Attached are the usual supplements giving membership and financial reports in detail. The Executive Secretary has maintained one full-time assistant throughout the year, one part-time assistant during the busiest seasons, and an advertising representative, the latter on a commission basis, under direction of the Board of Trustees.

Officially, personally, and for his assistants, your Executive Secretary expresses heart-felt thanks to the constitutional officers, the committeemen, and the scores of members of the Society whose many courtesies and willing response to every call for help have smoothed a difficult road and made possible whatever successes the office may claim.

Respectfully submitted,

HARVEY T. SETHMAN,
 Executive Secretary.

SUPPLEMENT TO THE REPORT OF THE EXECUTIVE SECRETARY

MEMBERSHIP

Active membership (as of Aug. 31, 1934):

Resident paid	1,022
Resident gratis, by transfer	1
Non-resident paid	21
	1,044
Less deaths of 1934 members	8
Active members, Aug. 31, 1934	1,036
Active members, Aug. 31, 1933	979
Gain during year	57

Analysis of change in active membership:

New members, paid	97
New members, by transfer	1
Reinstatements	41
Gross gain	139
Deaths during year	17
Resigned	1
Transfers to other states	11
Actives elected associate	11
Suspended for non-payment	42
Gross loss	82
Net gain	57

Associate membership:

Associate members, Aug. 31, 1933	41
Additions by election	11
	52
Losses (5 died, 1 dropped)	6

Associate members, Aug. 31, 1934	46
----------------------------------	----

Honorary membership:

Honorary members, Aug. 31, 1934	7
Changes during year	0

Honorary members, Aug. 31, 1934	7
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Total members, all classes, Aug. 31, 1934	1,089
---	-------

Total members, all classes, Aug. 31, 1933	1,027
---	-------

Gain during year	62
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SUPPLEMENT TO THE REPORT OF THE SECRETARY

Cash Report for the Fiscal Year of Sept. 1, 1933, to Aug. 31, 1934, Inclusive

RECEIPTS—

Dues, resident	\$10,502.50
Dues, non-resident	105.00
Space rentals	197.50
Interest and securities	264.15
Premium on bonds sold	32.29
Publications	8,306.93
Miscellaneous	141.60

REMITTED TO TREASURER-----\$19,548.97

DISBURSEMENTS—**General Fund:**

Salaries	\$ 3,051.00
Rent	240.00
Telephone and telegraph	347.55
Taxes	64.00
Insurance	27.02
Audits and Bonds, bank charges	169.07
Travel expense	1,134.09
Mailing and supplies	432.60
Permanent equipment	—
Scientific Work and exhibits	309.97
House of Delegates	167.25
Guests and entertainment	92.62

Total General Fund-----\$ 6,035.17

Publication Fund:

Salaries	\$ 3,042.00
Printing and mailing	6,333.04
Supplies and promotion	229.25
Commissions	2,365.70
Collection Expense	100.87

Total Publication Fund-----\$12,070.86

Medical Defense Fund-----23.25

Library Fund-----499.08

Education Fund:

Salaries	\$ 800.00
Public Policy Committee	338.67
Special appropriation	216.00

Total Education Fund-----\$ 1,354.67

VOUCHERS ISSUED-----\$19,983.03

CERTIFICATE

The Colorado State Medical Society:

I have audited the accounts and records of The Colorado State Medical Society for the year ended August 31, 1934.

The financial records kept by the Executive Secretary and the Treasurer of the Society were found to be correct, and

I HEREBY CERTIFY, That, in my opinion, the accompanying Balance Sheet and Summary of Income and Surplus correctly exhibit, respectively, the financial condition of the Society at August 31, 1934, and the results of its operation for the year ended that date.

J. LEON HARTSFIELD,
Certified Public Accountant.

Denver, Colorado, September 7, 1934.

THE COLORADO STATE MEDICAL SOCIETY (Incorporated in Colorado)

Balance Sheet, August 31, 1934

Assets	
Cash in Banks	\$ 2,080.78
Investment in Bonds at Face Value	7,000.00
(Market value \$6,322.50)	
Accounts receivable	\$ 7,368.34
Less reserve for doubtful accounts	800.00
	6,568.34
Furniture and Fixtures	\$ 1,919.72
Less reserve for depreciation	841.01
	1,078.71
Total	\$16,727.83

Liabilities

Unearned portion of advertising contracts	\$ 4,090.82
Surplus, per Exhibit "B"	12,637.01
Total	\$16,727.83

EXHIBIT "A"

THE COLORADO STATE MEDICAL SOCIETY

Summary of Income and Surplus for the Year Ended August 31, 1934

INCOME:

Dues, interest, etc.	\$ 9,187.54
Colorado Medicine	11,183.79
Total income	\$20,371.33

EXPENSES:

General	\$ 8,124.75
*Colorado Medicine	12,911.42
Total Expenses	\$21,036.17
Net loss for the year	664.84
Surplus at beginning of year	13,401.85

Gross surplus	\$12,737.01
Surplus charge—addition to reserve for bad debts	100.00
Surplus at end of year	\$12,637.01

EXHIBIT "B"

*The expenses of Colorado Medicine include the write off of accounts receivable in the amount of \$840.07, which were considered uncollectible. Practically all of these accounts represented prior years' business.

Mr. Sethman: "Mr. President, I have little to add to the printed report, except to state that our membership as reported for August 31, 1934, is continuing to grow through September and quite a number of the forty-two mentioned as being under suspension for non-payment of dues at the time this report was written have since then re-instated."

The report was referred by President Webb to the Reference Committee on Reports of Officers, with the exception of the financial supplements, which were referred to the Reference Committee on Audits and Appropriations.

Dr. Bortree, Treasurer, then presented his report, as follows:

REPORT OF THE TREASURER

September 1, 1934.

To the House of Delegates of the Colorado State Medical Society:

Gentlemen:

In presenting this, my Eighth Annual Report as Treasurer, statistics of which are attached, I wish to comment briefly on our present financial status.

At the beginning of this fiscal year, we had in assets \$9,214.87; at the close of the year our assets total \$8,782.81, a decrease of \$432.06. Our

decrease in assets for the previous fiscal year was \$1,400.00; in other words, our financial situation is improving, although our income did not quite meet our expenditures for the past year.

When comparing last year's budget with this year's actual figures, we find that Membership Dues have exceeded our estimate by \$1,007.00; that Publication Fund and Space Rentals did not come up to the estimated figures. On the expenses, the estimate came very close to Budget requirements with the exception of two items; Travel, which was \$334 greater than our estimate, and Advertising Commissions were \$865 greater. The expense of advertising commissions is entirely offset by the increase in advertising revenue. The increase in the travel allowance for the year, which is our greatest change, is due largely to some of the alphabetical departments of the Federal Government, noticeably the F.E.R.A., which has imposed a tremendous load on the office of the Society and caused an unusual amount of travel. With these exceptions, our Budget has been very closely approximated. One item which appears as an expenditure, that is the allowance to the Medical School and Hospital for installation of forms, was an expenditure of our surplus and does not come within the budgetary requirements. For this purpose, \$300.00 was allowed by the House of Delegates but the actual expense involved on this account was \$216.00. In general, the budgetary estimate for the year was closely approximated, and I feel our financial situation at the present time is extremely satisfactory.

During the term of office of the present incumbent, the financial dealings of the Society have increased in extent and complexity until at the present time the office of Treasurer requires more detailed knowledge of the activities of the Society than formerly. My term of office will expire next year, and it would be unjust to a member of the Society to ask him to take over the duties of this office without some previous experience. I am, therefore, requesting that at this session the House of Delegates appoint an Assistant Treasurer for a period of one year with the expectation that he would take over the office of Treasurer at the next Annual Session. This would give him the opportunity of becoming acquainted with the financial ramifications of the Society's business and enable him more easily and more efficiently to serve the Society.

I again wish to express my appreciation to the Officers of the Society who have so kindly aided me in caring for your funds entrusted to our care.

Respectfully submitted,

L. W. BORTREE, Treasurer.

SUPPLEMENT TO THE REPORT OF THE TREASURER

Balance on hand September 1, 1933 ----- \$ 9,214.87

RECEIPTS

Dues, resident -----	\$10,502.50
Dues, non-resident -----	105.00
Space Rentals -----	197.50
Interest -----	290.65
Publications -----	8,306.93
Miscellaneous -----	225.60
Bonds -----	3,500.00
Total Receipts -----	\$23,128.18
Total -----	\$32,343.05

DISBURSEMENTS

General Fund -----	\$ 9,528.38
Publication Fund -----	12,070.86
Medical Defense Fund -----	23.25
Library Fund -----	499.08
Education Fund -----	1,438.67
Total Disbursements -----	\$23,560.24
Balance on hand August 31, 1934 -----	\$ 8,782.81

STATUS OF INDIVIDUAL FUNDS

Medical Defense Fund:

Balance September 1, 1933 -----	\$ 453.20
Disbursements -----	23.25
Balance on hand August 31, 1934 -----	\$ 429.95

Library Fund:

Balance September 1, 1933 -----	\$ 142.63
Appropriation -----	500.00
Disbursements -----	\$ 642.63
	499.08
Balance on hand August 31, 1934 -----	\$ 143.55

Education Fund:

Balance September 1, 1933 -----	\$ 5,404.59
Refund -----	84.00
Disbursements -----	\$ 5,488.59
	1,438.67
Balance on hand August 31, 1934 -----	\$ 4,049.92

Publication Fund:

Balance September 1, 1933 -----	\$-----
Appropriation, Subscriptions -----	2,054.00
Receipts -----	8,306.93
Disbursements -----	\$10,360.93
	12,070.86
Deficit August 31, 1934 -----	\$ 1,709.93

General Fund:

Balance September 1, 1933 -----	\$ 3,214.45
Receipts -----	12,683.25
Disbursements -----	\$15,897.70
	9,528.38
Appropriated to other funds -----	\$ 6,369.32
	500.00
Deficit Publication Fund -----	\$ 5,869.32
	1,709.93
Balance August 31, 1934 -----	\$ 4,159.39

DISTRIBUTION OF LIQUID ASSETS BY FUNDS

Medical Defense Fund -----	\$ 429.95
Library Fund -----	143.55
Education Fund -----	4,049.92
General Fund -----	4,159.39
	\$ 8,782.81

LOCATION OF LIQUID ASSETS

Bonds, par value -----	\$ 7,000.00
Savings Account -----	111.64
Checking Account -----	1,671.17
	\$ 8,782.81

Dr. Bortree: "Mr. President, my report speaks for itself. The one request that I have made in my report,—that the House appoint an Assistant Treasurer for the ensuing year,—is because of the complexity of our financial affairs at the present time. I feel a man ought to have some experience before taking over the work. I am willing to do the work this year but I'd like to have someone become familiar with the work so he might take over the office next year at the conclusion of my term of service. I would therefore request that the Committee on Nominations, when it is chosen, bear this in mind."

The Treasurer's report was referred to the Committee on Audits and Appropriations and the President called on Dr. Ames to present the

report of the Delegates to the American Medical Association. It was as follows:

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

August 28, 1934.

To the House of Delegates of the Colorado State Medical Society:

The extraordinary interest manifested, not only by the medical press but by lay publications throughout the United States, in the proceedings of the Eighty-fifth Annual Session of the American Medical Association, held at Cleveland, June 11 to 15, 1934, reflects strikingly the mounting significance of our professional problems.

No session in recent years has offered for consideration and discussion so many vital issues affecting the fundamental principles of organized medicine and, in spite of the natural diversity of opinion among earnest men in the solution of these questions, no session has witnessed a finer spirit of unity and cooperation. Throughout the entire convention there was manifested the most harmonious action and the determination to present a consolidated front against not only those agencies which seek the socialization of a great calling but those within our ranks who would sell their birthright for something less than the proverbial mess of pottage.

With the complete transactions of this notable assembly so readily available to you in our national and state journals, it would appear unnecessary to recount here the activities of the various committees and the numerous resolutions presented by them for the information and guidance of the House of Delegates, but it will be apparent to all who peruse these documents that the attention of our representatives centered chiefly upon the various features of medical economics. The declaration of the special committee, appointed to interpret the views of established medicine in this controversial field, is so fair and comprehensive and was received with such unanimous approval that I shall take the liberty to include it, herewith, in its entirety as an expression of principle to be forever fixed to the doorposts of our minds:

1. All features of medical service in any method of medical practice should be under the control of the medical profession. No other body or individual is legally or educationally equipped to exercise such control.

2. No third party must be permitted to come between the patient and his physician in any medical relation. All responsibility for the character of medical service must be borne by the profession.

3. Patients must have absolute freedom to choose a legally qualified doctor of medicine who will serve them from among all those qualified to practice and who are willing to give services.

4. The method of giving the service must retain a permanent, confidential relation between the patient and a "family physician." This relation must be the fundamental and dominating feature of any system.

5. All medical phases of all institutions involved in the medical service should be under the professional control, it being understood that hospital service and medical service should be considered separately. These institutions are but expansions of the equipment of the physician. He is the only one whom the laws of all nations recognize as competent to use them in the delivery of service. The medical profession alone can determine the adequacy and character of such institutions. Their value depends on their operation according to medical standards.

6. However the cost of medical service may be distributed, the immediate cost should be borne by the patient able to pay at the time the service is rendered.

7. Medical service must have no connection with any cash benefits.

8. Any form of medical service should include within its scope all qualified physicians of the locality covered by its operation who wish to give service under the conditions established.

9. Systems for the relief of low income classes should be limited strictly to those below the "comfort level" standard of incomes.

10. There should be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

Among other important transactions of this session were amendments to the Principles of Medical Ethics relating to contract practice, a reprimand for the Board of Regents of the American College of Surgeons in promulgating a policy of medical care which does not represent the views of organized medicine, resolutions directed against the practice of radiology by unlicensed persons; against harmful radio broadcasting; on limiting physicians on staffs of hospitals approved for interne training to members of component county medical societies.

The total registration of the Cleveland session was 6,293, more than one-third coming from Ohio. Thirty-seven members of the Colorado State Medical Society profited by the post-graduate training offered in the great assemblage.

Respectfully submitted,

J. W. AMESSE.

Dr. Amesse: "Mr. President, if time permitted there would be a good deal to add to the brief report that I made, but I believe it will be sufficient at this time to say that the delegates to the American Medical Association assembled last summer in Cleveland (and this includes your own two delegates) have determined not to relinquish our heritage for any matter of expediency or monetary gain, because we do not feel that this heritage is ours to surrender. We propose to go down together if we go down at all, fighting for the rights we have inherited from those now off the stage, fighting for our own rights, but more especially for those who succeed us and are going out into the field beset with more difficulties than we found when we ourselves graduated."

No Vice President had any special report.

The President then called for reports of Standing Committees, the first being that of the Committee on Scientific Work, as follows:

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK

August 30, 1934.

To the House of Delegates of the Colorado State Medical Society:

Through the year the Committee convened twenty-one times. It early established the policy that the members of the Colorado State Medical Society should have the type of scientific program that they desired. To this end a questionnaire was mailed to each member, and a very gratifying response was obtained. The scientific program therefore has been selected to comply with the desires expressed in the questionnaires. All papers and exhibits are to be presented by members of our own Society except two papers by invited guests.

It has been the further policy of the Committee to provide as much scientific material as possible and yet maintain reasonably short hours of meeting, again complying with expressed desires of the Society's membership. In addition to the usual program we have been fortunate in the cooperation of members of the Society who are preparing operative, bedside, and skin clinics for those who wish this type of instruction.

The extra-scientific activities of the Annual Session have been given much attention. These business, social, and fraternal activities have been arranged for times thought to be conducive to increased attendance at the scientific meetings of the Session. After careful consideration and deliberation your Committee advised a change of the meeting place from the Municipal Auditorium to the Antlers Hotel, where facilities that we believed were better could be obtained for meetings, exhibits, committees, and the House of Delegates. The management of the Antlers Hotel has accorded this Committee and its "right hand," the Committee on Arrangements, every possible courtesy.

Members of the Committee on Scientific Work wish to express their appreciation for the unusual cooperation afforded by the members of the various sub-committees and by the officers of the county societies.

Respectfully submitted,

KENNETH D. A. ALLEN, Chairman,
BURGETT WOODCOCK,
G. BURTON GILBERT.

Dr. Kenneth D. A. Allen: "Mr. President, I have nothing to add to this report, but I cannot resist thanking publicly the Colorado Springs men who have labored long, hard and diligently to make this meeting a success,—Dr. Hartwell, Dr. Bortree, Dr. Gilbert, Dr. Drea, Dr. Campbell and Dr. Giese. I certainly appreciate their cooperation."

The report was referred to the Reference Committee on Reports of Committees.

The President called for the report of the Committee on Arrangements, which Dr. Hartwell made as follows:

REPORT OF THE COMMITTEE ON ARRANGEMENTS

August 29, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Committee on Arrangements began its labors early last winter and hopes that the product may prove acceptable.

This Committee heartily endorses the experimental innovations suggested by the Committee on Scientific Work, namely:

1. To put under the one roof of the Antler's Hotel, all official activities of the 1934 annual session. It is hoped that by this plan social intercourse will be promoted; that the attendance at the Scientific Sessions will be improved and that the scientific exhibits may receive greater study and appreciation. It is hoped that the time schedule, including a reasonably late opening of the morning meetings, and the noon and afternoon meetings of the House of Delegates, will conserve time and avoid confusion by facilitating promptness.

2. A Stag Smoker will be conducted by Dr. Carl S. Gydesen at the Broadmoor Golf Club on Thursday evening. The grant of the Trustees of \$100.00 to finance this venture is appreciated.

3. Bedside and Operative Clinics. To Dr. C. E. Harris we are indebted for the arrangement of this innovation.

4. Postponement of the annual banquet to Saturday night will hopefully prove a lure to another evening's social pleasure. Dr. W. A. Campbell has assumed responsibility for this feature. The President's reception, as usual, will precede the banquet.

5. A registration fee of \$5.00 to those Colo-

rado physicians not members of the State Society. Admission to the Scientific sessions will be by badge.

A golf tournament has been arranged by Dr. Harry W. Woodward for Friday afternoon. A golf luncheon at the Broadmoor Golf Club will introduce the tournament.

We wish to note the cooperation not only of the management of the Antlers Hotel, but of the Alamo Hotel, the Arrow Hotel, Cheyenne Hotel, Joyce Hotel, Kennebeck Hotel and the Rex Hotel in quoting attractive rates during the Convention. Especially do we wish to stress the willingness of the Antler's management to cooperate in every way.

A more than usually elaborate entertainment for the ladies has been planned by Mrs. John B. Crouch.

Respectfully submitted,

JOHN B. HARTWELL, Chairman,
WILLIAM A. CAMPBELL,
CARL S. GYDESEN.

The report was referred to the Reference Committee on Reports of Committees.

The report of the Committee on Public Policy was next presented, as follows:

REPORT OF THE COMMITTEE ON PUBLIC POLICY

August 30, 1934.

To the House of Delegates of the Colorado State Medical Society:

The Committee has held eight meetings since the last Annual Session of our Society and wishes to report as follows on its actions:

- (1) Approved the publication of an article on the history of pneumothorax in a lay magazine by a member of the Society, Dr. Waring.

- (2) Inaugurated a plan to unify opinion in the Colorado State Medical Society in regard to the Basic Science Law. This plan was carried out by appointing Dr. Heusinkveld as a sub-committee of one to address as many county societies as possible during the year, on the principles and ideals of this law. Dr. Heusinkveld addressed seven county societies and the Arkansas Valley Medical Association along these lines.

- (3) The Committee voted to support the American Medical Association in its stand in opposition to re-loosening the restrictions on the use of Veterans' Hospitals. The Colorado Congressional delegation was wired to this effect.

- (4) The Committee joined with the Committee on Medical Economics in the creation of a joint sub-committee to study advertising activities of Colorado hospitals, sanatoria, and related institutions. This sub-committee held numerous meetings and presented its report to the Board of Councillors, which adopted a resolution on the subject, and this action of the Committee on Public Policy is covered in the Council's report.

- (5) The Committee supported the activities of our Special Committee on Public Health in an attempt to bring about construction of modern sewage disposal plants for cities in Colorado.

- (6) The Committee undertook a telegraphic campaign against the Reed Amendment to the annual "independent offices appropriation bill" in Congress.

- (7) The Committee took part in the conference of all major committees of this Society to study the proposal made by the Medical Economics Committee relative to the admission of patients to charity clinics and hospitals in Colorado.

(8) The Committee held a joint meeting with the Advisory Committee to the School of Medicine to consider legislation affecting the Colorado General Hospital.

(9) At the 1933 meeting of the State Society, this Committee was asked to make a survey of the tuberculosis situation in Colorado. Pursuant to this request, an official of the American Public Health Association was requested to make such a survey, but was unable to do so. This Committee, however, is to meet with Dr. Kendall Emerson, Managing Director of the National Tuberculosis Association, for a discussion of its problems, on September 19, 1934. A further verbal report on this meeting will be presented at the first meeting of the House.

Respectfully submitted,
CHARLES O. GIESE, Chairman.

The report was referred to the Reference Committee on Reports of Committees.

The President next called for the report of the Committee on Publication, as follows:

REPORT OF COMMITTEE ON PUBLICATION

The material assets accruing to the State Medical Society through the ownership and publication of Colorado Medicine consist of 82 books received for review, 77 volumes or exchange medical journals, and somewhat in excess of \$11,000 in cash received for advertising, subscriptions, and other miscellaneous items. No attempt is made to appraise the intellectual and spiritual assets which likewise redound to the Society.

The publication of Colorado Medicine has become a major undertaking. The 12 numbers published during the past fiscal year comprise over 1,000 pages of printed matter. More than one-half of this material consists of advertising pages for which the Society has been financially reimbursed. The number of advertising pages for the past 12 months is 52 in excess of those for the year preceding.

Detailed and comparative figures are set forth below:

	Sept., 1933 to Aug., 1934, Inc.	Previous Year
Pages, scientific section	510	502
Pages, advertising section	548	494
Total pages published	1058	996
Original articles, Colo. section ..	51	46
Early diagnosis articles, Colorado section ..	2	4
Case reports, Colorado section ..	11	10
Original articles, Wyoming section ..	3	9
Original articles, hospital section ..	15	9
Books received for review	82	81
Volumes of exchange journals received	77	72

No financial accounting is rendered in this report as details of debits and credits are presented in the report of the Treasurer.

On behalf of the Society the Committee wishes to extend its thanks to Dr. Douglas Macomber for his able services as editor of the journal and to Mr. Harvey Sethman for his efficient services as business manager.

Respectfully submitted,
WILLIAM H. CRISP,
C. F. KEMPER,
C. S. BLUEMEL, Chairman.

The report was referred to the Reference Committee on Reports of Committees.

The President called for the report of the Com-

mittee on Medical Defense. The report was as follows:

REPORT OF THE COMMITTEE ON MEDICAL DEFENSE

August 23, 1934.

To the House of Delegates of the Colorado State Medical Society:

The Committee has had a moderately active year, having held fourteen (14) meetings. During that time there have been nineteen (19) new cases presented and eighteen (18) cases carried over from the previous year, making a total of thirty-seven (37). The cases closed during the year were ten (10). Cases pending on August 1, 1934, were twenty-seven (27).

The Committee wishes again to call the attention of the Society to the fact, which has been proven out in the past three years, that practically all suits of malpractice are started by other physicians making statements to the patient about conditions which have happened before they ever saw the patient. Such statements presume too much on what has gone on in the past, and create most of the trouble which comes up before this Committee. We respectfully request that the members of the Society be more careful in discussing other men's treatment in front of patients.

Respectfully submitted,
T. D. CUNNINGHAM, Chairman.
FRANK B. STEPHENSON,
CASPER F. HEGNER.

The President referred the report to the Reference Committee on Reports of Committees.

The report of the Committee on Medical Education and Hospitals was then presented by Dr. John A. Sevier, as follows:

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

September 3, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Committee met twice during the year.

This Committee is one that very largely stands on call for such times as any complaints against hospitals, changes or recommended changes in hospital ratings, requests for approval of new hospitals, etc., arise. The A.M.A. made no requests upon the Committee for inspection or investigation of any hospitals.

At the first meeting the Committee considered complaints of certain Denver hospitals against the activities of an A.M.A. hospital inspector who allegedly encouraged insubordination on the part of internes and who gossiped about the hospitals' internal confidential affairs to persons outside the institutions and not connected with the institutions. Together with the Board of Trustees of the Society, we authorized the Executive Secretary to go to Chicago and discuss this matter personally with the officers of the A.M.A., with the result that the Committee has been informed that such practice will not be repeated.

The second meeting was held in Denver jointly with other Committees to advise with the Committee on Medical Economics concerning the advisability of a By-Law amendment toward taking over, within the Society, control of admissions to charity clinics and hospitals.

Respectfully submitted,
JOHN A. SEVIER, Chairman.

The report was referred to the Reference Committee on Reports of Committees.

President Webb then called for a report of the Committee on Library and Medical Literature. Dr. George A. Boyd read the report, as follows:

REPORT OF THE COMMITTEE ON LIBRARY AND MEDICAL LITERATURE

August 29, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Library Committee has to report as follows:

During the year there has been one meeting of the Library Committee, August 9, 1934. It was found that the committee's function of supervising the purchase of books and other expenditure of the two hundred and fifty dollars of the State Society's contribution to the Medical Library of the City and County of Denver had already been assumed by the Library Director, Dr. James Waring, by and with the approval of the full Board of Trustees of the Medical Library of the City and County of Denver.

No list of purchases was submitted to this Committee for its approval. No vouchers for whatever money has been spent were submitted for the Committee's ok. To date no statement of receipts and expenditures has been received from the Medical Library of the City and County of Denver. Dr. Kenney ordered this report from the Library on August 9, 1934. The Committee has nothing to do but report its rudimentary and functionless condition. When viewed apart from your Committee, the State Medical Society has not suffered any deterioration of its library values or functions. Dr. Kenney, Dr. Waring, and the Library Trustees have kept the Medical Library up to its high standard and we feel sure have well invested our funds.

This suggestion we would make: That the Library Trustees and Library Director condescend to recognize the Committee on Library and Medical Literature to the extent the By-Laws demand, and throw such responsibility upon them as will satisfy their vanity and arouse their activity to some purposeful part in selecting the literature the State Medical Society pays for and holds the right to select.

Respectfully submitted,

GEORGE A. BOYD, Chairman.

President Webb: "Is there any discussion on Dr. Boyd's contribution?"

Dr. Waring: "'Out of the pit that covers me'—and so on!"

"When I was coming down from Denver to Colorado Springs I saw and was amused by a lot of advertisements, 'Pity all the mighty Caesars, that pulled their whiskers out with tweezers!' and after reading this Committee report I woke up about 6:30 this morning and said to myself, 'The Chairman of this Committee was Dr. Boyd; who is sore as hell because he was not employed!'

"I got hold of him, and I think we understand each other a little better. Of course I was upset a little bit at what I thought was an unnecessarily severe indictment of the management of the library. Custom has evolved an unfortunate situation to which Dr. Boyd protests, and I recognize his protest as just. Next year we will see that the Committee has every encouragement in the world to come down to Denver and help us select the books for the Library."

The report was referred to the Reference Committee on Reports of Committees.

President Webb called for the printed report of the Committee on Cooperation with Allied Professions, as follows:

REPORT OF THE COMMITTEE ON COOPERATION WITH ALLIED PROFESSIONS

August 25, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Committee on Cooperation with Allied Professions begs to make the following report:

We have had meetings throughout the year, also one joint meeting with the Committee on Nursing Education.

One of our representatives was present at the meeting of the Colorado Hospital Association, also at a special meeting in Denver at which one of the members was invited to speak.

We were fortunate in having a member of the profession address the Colorado Pharmaceutical Association at Colorado Springs. His address was well received.

The Governor was approached on several occasions relative to the nursing situation in the state, particularly that phase that had to do with the training schools. Our influence brought to bear on having a change in the personnel of the present State Board was a success. The chief reason for this effort was that certain special requirements were working hardships on the various institutions of the state. The Governor appointed two members of the Board that were in sympathy with the training schools. We recommend that further effort along this line be continued.

Respectively submitted,

M. O. SHIVERS, Chairman.

Dr. Miller: "Mr. Chairman, Dr. Shivers advised me that he would be unable to attend tonight's session but will be at future meetings of this House. We would like to bring up something further than is in this report, if you will give him the opportunity."

President Webb: "It will be brought up at the next meeting, if there is no objection."

The report of the Committee on Medical Economics was presented by Dr. Philip Hillkowitz, as follows:

REPORT OF THE COMMITTEE ON MEDICAL ECONOMICS

August 30, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Committee submits herewith a condensed report of its activities during the past year. Since the Committee was organized, on September 19, 1933, and up to the day this is written, seventy-nine meetings have been held, at the great majority of which every member of the Committee was present. Additional conferences between the Chairman and Secretary and other sessions when less than a majority of the Committee was present, are not counted in the above total. This multiplicity of conferences was necessitated by the numerous requests on the part of physicians, officers of county medical societies, and social service workers to adjudicate various controversial matters arising between the profession and the several government relief agencies.

A summary of the Committee's work for the year is herewith shown in chronological order:

The first two meetings in September were de-

voted to the preparation of statistical data for the Bureau of Medical Economics of the American Medical Association.

In November we made our first studies of the F.E.R.A. at the time Rules and Regulations No. 7 were published.

In December a survey of all the counties and districts of the state was made for the purpose of ascertaining the respective average minimum fees obtaining in the different localities.

During the same month we also made preliminary studies with the Retail Credit Men's Association with a view to the establishment of a cooperative agreement for reporting delinquent medical accounts to this organization, which, through its close association with the business houses of the cities and its ability to hold up the credit of individuals, will tend to insure more prompt payment of physicians' bills. Financial considerations have retarded the fruition of this plan until now, but almost all the obstacles have been overcome, the report cards are now printed, and within a month or so the project should be ready for acceptance by the entire membership of the Society.

In December the Committee made a study of the bed occupancy of the hospitals, sanatoria, and allied institutions of the state and adopted a resolution, later confirmed by the Board of Trustees, disapproving of any increase in their respective bed capacities. The resolution was published in the February issue of Colorado Medicine.

About the same period the Committee met several times jointly with the Committee on Public Policy, creating a joint subcommittee which prepared data on the advertisements of hospitals and sanatoria in the lay press. On the basis of its findings the Board of Councillors passed a resolution establishing definite ethical standards. (Colorado Medicine, February, 1934.)

In December, also, the C.W.A. situation developed, which will be treated later in this report.

In February, at the request of one of our county societies, the Committee took steps to oppose sending Public Health Nurses from Denver into health projects of other counties where unemployed Public Health Nurses were already available. In the same month began the consideration and study of a proposed amendment to our By-Laws, originated by a member of this Committee and relating to the control of admissions to charity hospitals and clinics.

In April this study had reached a stage where our President, Doctor Webb, deemed it important to call a joint conference of all officers and major committees to hear the preliminary report of the Committee on this important subject. It may be pertinent to note here that the amendment, after mature study and pruning on the part of the Committee, may come up for a vote at this Session. Ample opportunity has been given the membership to study fully the text of the amendment and its implications by publicity in the September, 1934, issue of our Journal.

Throughout the winter the Committee cooperated with the Public Policy Committee in presenting arguments to Senators and Congressmen against loosening the restrictions on free service to be given by United States Veterans' Hospitals. We have also kept an eye on the social welfare survey of the state which is being made by the Colorado Conference of Social Work. Naturally sympathetic with its fact-finding purposes, we are nevertheless keeping watch on possible remedial measures which may be recommended that may

be at variance with the policies of the organized medical profession.

The Committee has also had under consideration the feasibility of raising a fund by voluntary subscription from physicians and 'friends of the profession for the purpose of defense in the press and through other agencies against attacks on the economic status of the physician. The Board of Trustees has graciously authorized the Committee to establish such a fund whenever the emergency calls for it.

In May the Committee filed protests with the Judicial Council of the American Medical Association against the tactlessness of certain nationally known medical men who were widely quoted in the press with utterances detrimental to the economic welfare of the profession.

Throughout the year we received and answered requests from other state medical societies and from the American Medical Association for statistical material and data relating to medical economics in Colorado. Much interest was manifested in the statistical report of physicians' incomes which this Committee made a year ago. It served as a model for other states in ascertaining on scientific principles more exact methods of estimating physicians' earnings. This piece of research with its factual data has helped us in our activities with the C.W.A. and the F.E.R.A. We have already launched an identical survey on physicians' incomes for 1933, the results of which will be collated in the near future.

As a large part of our Committee's work was taken up with straightening out problems relating to governmental relief agencies, we may profitably devote more than a few lines to recount our experiences with the C.W.A. and the F.E.R.A.

The Committee was one of the first, if not the first, representative of a state medical society to initiate a campaign with the national officers in Washington for the amending of C.W.A. regulations so as to permit free choice of physician. This phase of our activity in December and January was one of two great battles the Committee waged during the year. A great number of telegrams and telephone calls were exchanged between our Secretary's office and the A.M.A. headquarters in Chicago and many government officials. We cooperated with the American Medical Association in this fight and may perhaps take some of the credit for the courageous stand assumed by our national organization. Our efforts were crowned by success and free choice of physician was won.

The approximately \$300.00 invested in this skirmish by our Society has brought something more than \$12,000.00 in fees back to our members, with promise of from \$6,000.00 to \$10,000.00 still to come. The Committee regrets that federal red tape in Washington has greatly delayed the payment of C.W.A. bills. There has also been an unexpected arbitrary reduction of the bills sent in by many physicians. This reduction was made in Washington, not by the C.W.A. officials in Colorado, the latter having been most cooperative and reasonable in their work with this Committee. We are now, at the time of writing this report, protesting to the higher authorities against this breach of agreement.

In early February, when the F.E.R.A. began operations in Colorado, the then regional director for the Rocky Mountain District demanded in rather curt language that we agree to set the physicians' fees at 50 per cent of the minimum. He was encouraged in his stand by the action of certain other states, where, unprepared for the

new development, medical societies had surrendered their rights for half and in some cases less than half of the minimum fee. Our vigorous protest against physicians having to work at a personal loss constituted the second great battle of the Committee in this year. Again with the expenditure of several hundred dollars in telegraphic and telephonic communication, with the aid of the American Medical Association, some of our congressional representatives in Washington, and certain other state medical societies similarly affected, a campaign lasting a month was waged, insisting upon a basis of 70 per cent of the minimum fee. We were also assisted in our endeavors by a number of civic and philanthropic organizations who had equal cause for complaint against the arrogant attitude of the regional director. As a result, the official involved was removed. With all the more reason we are happy to record the cordial relations now existing between the F.E.R.A. and our Committee. The State Relief Director has generously lent the facilities of her office in solving numerous problems arising between county relief agencies and individual members of the county medical societies.

Again as in the case of the C.W.A., our Society's investment of time, energy, and money toward straightening out F.E.R.A. problems has returned to the physicians of the State manifold. The F.E.R.A. medical program did not get under way in all counties simultaneously, nor is it yet fully in operation in every county. However, from January to June, inclusive, approximately \$16,000.00 in medical fees has been paid to members of our Society by the F.E.R.A., and in July and the first half of August more than \$25,000.00 additional fees have been similarly paid, bringing the totals in round figures, at the time of writing this report, to these: C.W.A., \$12,000.00 plus; F.E.R.A., \$50,000.00 plus, a grand total of between \$62,000.00 and \$65,000.00.

In addition to the C.W.A. and the F.E.R.A. activities, attention of the Committee was given to the concentration camps established for transients in certain key cities, by a special division of the F.E.R.A. In some of these camps the Transient Division has cooperated closely with the local medical societies and has asked the latter to name the physicians who were to care for the men on a part-time salary basis.

The Committee and Executive Secretary have taken part in or conducted a large number of conferences with officers and committees of county medical societies and with county relief administrators, as well as with the state relief officers, all on F.E.R.A. matters. It is worthy of note that our good standing with the F.E.R.A. is at least in part responsible for the State Society adding three new county medical societies to its list of constituents, as well as many new members to our roster.

While the activities of the Committee have been devoted chiefly to the prosaic day-by-day problems as they arose, we have also paid attention to the larger subject of medical economics amidst the present changing conditions. Studies have been made by individual members of the Committee of some projects now being tried out in various localities in the United States, designed to spread the cost of medical care over a larger part of the population and bring the benefits of medical science to those who can only partly pay the physician for his services. We have also endeavored to keep abreast of the voluminous

literature on this subject, both at home and abroad. We are not in a position to offer any special remedy for this complex situation. Our efforts have been limited to the solution of problems as they arose. We have confined our activities within the present economic framework without chasing utopian rainbows. The Committee is not in sympathy with the tendency to put the practice of medicine on a regimented basis while industry and commerce are allowed the free sway of a laissez faire policy. If the medical profession is to be socialized, the same should hold true for all industry.

We desire to express our deep appreciation of the invaluable aid and cooperation given us by our Executive Secretary, Mr. Harvey Sethman, without whose talents and energy the results accomplished would not have been possible.

Respectfully submitted,

PHILIP HILLKOWITZ, Chairman,
CLAUDE E. COOPER,
F. JULIAN MAIER.

Dr. Hillkowitz: "The Committee on Medical Economics would like to supplement the printed report with a plea to the House of Delegates to consider the proposed amendment concerning regulation of admissions to charity clinics and hospitals, which was published in the September, 1934, issue of 'Colorado Medicine,' together with comments pro and con."

The President referred the report to the Reference Committee on Reports of Committees.

The report of the Committee on Post-Graduate Clinics was given by Dr. C. E. Harris, as follows:

REPORT OF THE COMMITTEE ON POST-GRADUATE CLINICS

August 25, 1934.

To the House of Delegates of the Colorado State Medical Society:

The annual clinic series was held in Denver on January 17, 18, and 19, 1934, during Stock Show week, as directed by this House one year ago. Despite the depression, the registration total at the clinics was 243, which was very gratifying.

Clinics were conducted at the Denver General Hospital, the Denver Children's Hospital, and the Colorado General Hospital. It was the testimony of those in attendance that the clinics were maintained on a very high plane. In addition, for the first time a move was made in certain sections, at Colorado General Hospital, to bring students into contact with cases.

Your Committee notes with special pleasure that the Pueblo County Medical Society, entirely of its own initiative, held a post-graduate clinic on April 18, 19, and 20, 1934. These clinics were staged at the Parkview Hospital, Corwin Hospital, and Saint Mary Hospital. Here again attendance was gratifyingly large and the standard of work of an especially high order. The hospitality of the Pueblo Society cannot be too strongly praised.

The Committee trusts that in proper season societies or centers will follow the example of the Pueblo Society and make available to their own districts, at least, clinical work. We hope further, that as time passes, it will be possible to bring this work closer to the bedside. Corollary to this, we believe that it would be an injustice to the sponsoring groups, wherever located, in large centers or small, to expect that anything approaching bedside teaching to small groups

should be carried on without additional fees. Such work is worthwhile and the rank and file of our members will doubtless be willing to pay a reasonable fee for same. Your Committee takes the liberty of urging upon our successors that interest in clinical work be not allowed to lag at a time when it is proceeding under favorable auspices. We cannot and should not be satisfied until such work becomes a fixed habit throughout the State. Time, and judgment of the House of Delegates, must determine to what extent, if at all, the State Society shall aid this movement.

Respectfully submitted,

C. E. HARRIS, Chairman,
MAURICE H. REES,
NOLIE MUMEY,
O. M. GILBERT,
FRED M. HELLER.

The President referred the report to the Reference Committee on Reports of Committees.

President Webb called for the report of the Committee on Military Affairs, as follows:

REPORT OF THE COMMITTEE ON MILITARY AFFAIRS

August 30, 1934.

To the House of Delegates of the Colorado State Medical Society:

At the request of the Bureau of Medicine and Surgery, United States Navy, your Committee has been instrumental in starting the formation of a second reserve medical group in Colorado, to be known as Specialist Unit No. 8, Medical Corps, United States Naval Reserve. This unit will be composed of physicians of Pueblo and its adjacent territory, and will be under the command of Dr. Calvin N. Caldwell, a member of this Society.

No other matters of importance have been brought before the Committee this year.

Respectfully submitted,

G. P. LINGENFELTER, Chairman,
J. W. AMESSE,
R. M. FULWIDER,
L. V. SAMS,
W. P. McCROSSIN.

Dr. Lingenfelter: "Since our report was submitted, your Committee has been requested to assist in the organization of still another unit in Colorado, preferably in the vicinity of Denver, to be known as a Reserve Base Hospital of the Navy. We can report some progress on that."

The President referred the report to the Reference Committee on Reports of Committees:

Next to report was the Advisory Committee to the School of Medicine, as follows:

REPORT OF THE ADVISORY COMMITTEE TO THE SCHOOL OF MEDICINE

August 31, 1934.

To the House of Delegates of the Colorado State Medical Society:

The work of the Committee in the past year has been devoted to:

1. Reception and investigation of complaints of practicing physicians with regard to Colorado General Hospital admissions.

2. Devising additional safeguards against competitive practice by the Hospital.

3. Prevention of unseemly if not unethical publicity pertaining to staff personnel and hospital practice.

4. Promotion of concord between the hospital authorities and the organized medical profession.

Your Committee held eleven meetings during the year. Two of these were joint meetings with the Public Policy Committee, one was a joint meeting with all major committees, one a joint meeting with the Medical Economics Committee, one with the Board of Regents of the University of Colorado, and one with President George A. Norlin of the University.

Discussion of Activities:

1. Complaints.

President-elect Madler, the Executive Secretary, and others, on their trips over the state, have encountered somewhat widespread, though not unanimous, dissatisfaction of the profession with the conduct of the Colorado General Hospital on the particular grounds of the admission of patients who are ineligible under the intent of present rulings and the law.

Whenever these complaints were voiced, complaining physicians were urged to submit specific instances, giving names of patients and approximate dates of admission. Only twelve complaints were registered, and some of these were volunteered by doctors in other localities than those visited. Of these, all but three were explained to the satisfaction of the Committee as being either eligible or sent in by doctors under their privileges and accepted by the hospital without question. Three were admittedly ineligible. More general complaints had to do with County Commissioners sending in, under formal admission blanks, their friends, political allies, and also many others who contracted with the Commissioners to refund to the county the county's share of the expense, i.e., \$2.50 per diem. This will be referred to further on, in a letter from the President of the Board of Regents.

2. Further means for prevention of abuses were studied throughout the year.

Systems of admission in other state-operated hospitals were systematically and exhaustively studied. Eventually a series of recommendations was evolved which, if adopted by the Regents, and conscientiously followed by the Hospital, would reduce competitive practice by the hospital.

3. Publicity of the kind which formerly occurred and which was obnoxious in the eyes of so many of the profession at large, we believe the members will agree, has ceased.

However, certain general publicity of the institution still unavoidably occurs, which, while it involves no possible conflicts with ethics, nevertheless attracts to the institution patients who should employ private physicians and private hospitals. We emphatically recommend that in all such publicity, and even in additional, planned publicity, the Hospital inform the public (1) that its purpose is to care for the poor, and (2) that physicians donate their services to the institution as a contribution to the poor.

4. Promotion of concord.

It has seemed to your Committee that the Regents of the University and the administrators of the medical school and hospitals who are engaged with the academic aspects of medicine were not conversant with the economic problems of practicing physicians, and perhaps not in a position to sense the social injustice to practicing physicians that exists when a tax-supported hospital receives and cares for pay-patients (whether the hospital be manned by a paid staff, or, worse yet, as in the case at hand, by physicians who donate their services).

The Committee therefore asked for a meeting

with the Board of Regents, which was willingly agreed to, and on November 17, 1933, an entire afternoon was spent with them, there being a full attendance of your Committee, along with President Webb, President-elect Madler and Mr. Sethman. We believe that meeting marked the beginning of a better understanding of mutual problems and mutual aims, as well as conflicting problems.

At a later date, July 6, 1934, it was decided again to request a meeting with the Regents, and to have with us our Public Policy Committee, Committee on Medical Economics, and representative men from over the state, in order that the Regents might be able to further evaluate the attitude of the profession at large toward the Hospital. To this request, President Norlin of the Board gladly acceded, suggesting however, that he would welcome a more informal preliminary meeting of the Committee with him and Dean Rees, to talk over matters in advance. Such a meeting was held at Boulder August 17. The results of that meeting appear in a letter received from Dr. Norlin following a conference held by him with the Regents soon afterward. President Norlin's letter is reproduced later in this report. In view of the accomplishments already made, the Committee has felt that further conference with the Regents before the Annual Session is unnecessary.

Comments on Accomplishments and Recommendations:

Complaints against the hospital may be classified under one head—Competitive Practice.

1. Through outside practice by full-time men remunerated through taxation.

2. Through free or near-free service to patients who can pay for privately-rendered service.

Number 2 occurs through abuses in admissions under existing rules, by:

1. County Commissioners.

2. Practicing Physicians.

The Regents are pledged to use every effort to stop abuses by the Commissioners.

The Medical Profession has the peculiar duty of protecting its members from its members. The Regents will help us in that. Do we wish to withdraw entirely the privileges of doctors to refer their needy cases to the Hospital? Your Committee thinks not. If not, a systematic plan of education of our members must be carried out. They must be made to realize their obligations toward fellow practitioners, and their loyalty to the purposes of the Society must be encouraged.

Through action of the House of Delegates, the Society is already on record favoring making Colorado General Hospital open only to purely indigent patients. The House has instructed the appropriate committees to endeavor to bring about such a situation whenever the time is ripe from the viewpoint of state governmental politics and finances. Further study will be necessary as to the amount of increased appropriations that would be required, and as to when the tenor of the legislature will be such as to encourage passage of the necessary legislation. Certainly caution should be used in a situation which might lead the public to the conclusion that we as an organization are inimical to the maintenance of a medical school in Colorado. If the hospital authorities will convince us of their earnest cooperation we should avoid creating a situation in the legislature which would hamper the Hospital in obtaining its needed appropriations. For these reasons your Committee is withholding for the

present recommendations for any radical changes in laws governing the institution.

Some outside practice by salaried physicians at the Hospital still exists. If this is to continue, such men at least should uphold the standards of fees that prevail in private practice. Also, certain outside practitioners receive monthly honoraria from the Hospital for services there. As long as this arrangement is of minimal extent in both cases, the counterbalance may obviate any reasonable objections, though this will bear further investigation.

In our opinion, experimental treatments of groups of outside patients should be limited to indigents.

The Superintendent of the hospitals has been asked for data regarding actual receipts for the past fiscal year from part-pay patients (who are admitted only by physicians) and the number of such patients. These figures, if received, will be presented in a supplementary report when this report is formally presented to the House of Delegates, as will certain other statistical data now being gathered.

President Norlin's letter follows:

Dr. Frank B. Stephenson,
Denver, Colorado.

Dear Dr. Stephenson:

At a meeting of the Board of Regents held today, I presented your letter to me of August 22nd and I found the Regents agreeable to the following measures:

First. The Board is willing in the case of any physician who has clearly abused his privilege in the matter of getting patients admitted to the Colorado General Hospital to refuse to admit patients recommended by him for the period of one year.

Second. In the case of a patient who has been served in the Colorado General Hospital under false representations by him to refuse him the privileges of the hospital in the future.

Third. The Regents will do anything within reason and within their power to get the County Commissioners to observe the law governing admissions to the Colorado General Hospital, it being regarded as contrary to the spirit of the law for county commissioners to send patients to the hospital who reimburse the commissioners for the cost to the county.

Fourth. The Regents will gladly meet with members of the Advisory Committee either as a Board or as a Committee of the Board whenever such meeting is desired, and they are disposed to facilitate conferences between the Advisory Committee and the Executive Faculty of the School of Medicine.

As to the reduction of the \$3.00 per diem fee to \$2.50, the Regents suspend judgment until they have further light as to the advisability of this measure.

The Regents are aware that even with the most careful and conscientious administration of such an institution as the Colorado General Hospital under the law governing its patients will find their way into the Hospital who are not entitled to be there, but the Regents are disposed to reduce such cases to the lowest possible minimum and will welcome any information or suggestion which will enable them to confine admissions to those only who come within the purpose of the institution and of the law governing it.

I may say that the Regents share the opinion that the present law under which part of the expense of completely indigent patients is shared by the counties, is and will continue to be unsatisfactory in administration. It does not seem that this is the time to get the law changed radically, although there is agreement that we should all work together toward the desirable goal of state support of indigent patients. This would mean putting a heavier burden upon the State, and probably to do this is out of the question for some time to come.

Finally, may I say that the Board of Regents, together with the University officers immediately concerned with this problem, are very appreciative of the efforts of your Committee to protect both the medical profession and the State at large from abuses of which complaint has been made or may be made from time to time.

In accordance with the request of your Commit-

tee for a joint meeting of your Committee with the Executive Faculty of the School of Medicine and the Board of Regents, the Committee is invited by the Board of Regents to be the guests of the medical institution at a luncheon there on Monday, September 17th.

Very sincerely yours,
GEORGE NORLIN.

Your Committee believes as follows: We can take no other stand than to foster and promote medical education. We are fortunate in having a Class A medical school. We need only to imagine its closure to realize the loss to all of us of the incentive and opportunity for improvement which it offers. We would not see it closed. It chances that incorporated with it is a well equipped, state-owned hospital, built and started on its course by a large, privately donated fund. The ideal would be that every physician in the state should avail himself of its advantages, lend it his aid, and look upon it with the pride of part ownership. This can be only if the advantages are not subverted by disadvantages.

Since the medical profession itself is the fountainhead of medical education it is right that the profession's viewpoints expressed through its organization, should within limits guide the policies of the school and hospital. It is therefore only when consultation rights are accorded the profession and its advice sought and respected, that the ideal will be attained. The function of this Committee, then, as we see it, is:

1. To act with the medical school and hospitals, for the Colorado State Medical Society, in promoting medical education in Colorado.

2. To see that the conduct of medical education is such that it does not run counter to the practical interest of the physicians who are its product and who continue to produce it. Medical science is of no value unless put into practical usage. Practicing physicians must live. The pragmatic aspect of medicine cannot be ignored.

Finally, the sincere thanks of your Committee are tendered to the Regents of the University of Colorado, to President Norlin of the University of Colorado, and to Dean Rees, who have cooperated in our studies.

Respectfully submitted,
FRANK B. STEPHENSON, Chairman.
JOHN S. BOUSLOG,
T. D. CUNNINGHAM,
CHARLES O. GIESE,
C. E. SIDWELL.

Dr. Stephenson: "I have one thing I would like to add to the report. I did succeed in getting from the Superintendent of the Hospital some figures with relation to the paid patients for the past fiscal year. I will read you Dean Rees' letter:

My dear Doctor Stephenson:
I am enclosing statement regarding the admission of \$3 per day patients during the calendar year 1933. This I believe will answer the various questions raised at the time of our recent meeting in Boulder.

The great bulk of patients agreeing to pay a portion of their own expenses are eventually paid for by some organization. Many of these organizations are given the county rate of \$2.50 per day.

The report submitted includes only those patients who in the original agreement signed up to pay the \$3 per day rate.

Yours very truly,
MAURICE H. REES, M. D.,
Dean and Superintendent.

COLORADO GENERAL HOSPITAL

Analysis of patients agreeing to pay \$3 per day for the year 1933.
Number of \$3.00 per day patients in 1933 ----- 336
Total patient days (1933) for \$3.00 per day patients ----- 4338

Total earnings, including extras ----- \$16,819.67
Cash received, including extras ----- 11,906.29

Balance due and uncollected, inc. extras. \$ 4,913.38

Amount due on \$3.00 rate, exclusive of extras ----- \$13,014.00
Cash received, including extras ----- \$11,906.29

\$ 1,107.71

Dr. Stephenson (continuing): "This \$16,819.67 earnings in the above table represents a loss to private hospitals and doctors of that amount."

Following further discussion of the supplemental letter and tabulation by Drs. H. R. McKeen and F. B. Stephenson, the report of the Advisory Committee and its supplements were referred by President Webb to the Reference Committee on Reports of Committees.

The President next called for the report of the Committee on Cancer Education, which was given as follows:

REPORT OF THE COMMITTEE ON CANCER EDUCATION

August 24, 1934.

To the House of Delegates of the Colorado State Medical Society:

The Cancer Education Committee submits herewith the report of its activities since the 1933 meeting of the Society:

Four meetings of the Committee were held. According to the plan recommended by the temporary Committee appointed in the summer of 1933, it was decided to devote the entire year to the subject of cancer of the breast, and to attempt to reach each constituent society in the state with a symposium program on that subject. For this purpose, four symposium teams were organized, each consisting of a surgeon, a pathologist and a roentgenologist. The members of the Society comprising these teams were Drs. George Unfug, Josephine Dunlop, George W. Bancroft, William C. Black, F. E. Diemer, W. S. Dennis, E. I. Dobos, together with certain members of the Committee. In addition, S. B. Potter and A. W. Freshman were kind enough to serve on occasion.

The state was divided into geographical districts, and where feasible two or more societies held joint meetings at a convenient place where the program was given. Where this was not feasible, or where the size of the society warranted, the symposiums were given before single societies.

The Adams County Society, the Clear Creek Valley Society and the Washington-Yuma Counties Society did not have programs, since they were newly organized this year, and it was not possible to change the existing order of programs to serve them.

The following Societies, for reasons with which the Committee is not familiar, failed to arrange meetings: Chaffee, Huerfano, Kit Carson, Lake, Morgan, Prowers and San Juan.

With these exceptions the entire state was covered by the symposium teams at various times during the year. At all meetings the interest shown was excellent.

The Committee desires to express its appreciation to the Constituent Societies for their cooperation in the presentation of these programs. In many of the more sparsely populated districts of the state, men came considerable distances to attend the meetings. It wishes to thank all the members of the symposium teams for their willing service in the program, and for the work and time they gave to it. The Committee particularly

wishes to thank the Executive Secretary, Mr. Harvey Sethman. Without his office, and his interest and diligence in arranging the meetings, the program could not have been successfully carried out.

Respectfully submitted,

LYMAN W. MASON, Chairman,
CHARLES T. RYDER,
JOHN B. HARTWELL,
C. W. MAYNARD,
W. W. WASSON,
HARRY S. FINNEY,
WILLIAM H. HALLEY,
KENNETH D. A. ALLEN,
W. W. HAGGART.

The report was referred by the President to the Reference Committee on Reports of Committees.

Dr. Webb called for the report of the Committee on Nursing Education. The printed report follows:

REPORT OF THE COMMITTEE ON NURSING EDUCATION

August 31, 1934.

To the House of Delegates of the Colorado State Medical Society:

At the last annual meeting of the Colorado State Medical Society, the House passed a resolution whereby a Committee was appointed to inquire into the question of the education of nurses.

Your Committee hereby reports:

(1) There are about seventeen training schools for nurses in this State; (2) There are very few schools that are able to give a course, although the course is three years, that will meet the requirements of the Colorado State Board of Nurse Examiners; (3) That a central school of nursing is maintained where classes are sent to meet the requirements for registration; (4) That training schools are required to stress subjects having little value to the student nurse who wishes to perfect herself in the art and practice of bedside nursing; (5) That the present course extends over a period of three years, and that the examinations for registration are difficult and so technical that candidates hoping to do bedside nursing are often unable to meet the requirements; (6) That your Committee requested the Colorado State Board of Nurse Examiners to submit the questions that had been asked at recent examinations, and, the reply received by your Committee stated that "by a ruling of the Board since 1930 the questions are not permitted to leave the office;" (7) That there is a demand for bedside nurses who would meet the requirements of the Medical Profession, and, the needs of many of our clients.

Your Committee recommends:

(1) That a Committee be named by the President of this Society to continue this inquiry; (2) That the State Medical Society should study the needs of the Profession for bedside nursing; (3) That a course for bedside nursing might be considered by the Society to meet the needs of many people who are not able to avail themselves of the services of our highly trained nurses.

Respectfully submitted,

FRANK E. ROGERS, Chairman,
HERBERT A. BLACK,
CLYDE T. KNUCKEY.

Dr. Rogers: "Mr. President, I have a short supplementary report to make, besides the one that is printed, and there have been a number of ques-

tions asked me in relation to this report. I think I might read those questions and answer them, if that meets with your approval.

"The question is asked by one member of the Society, 'Is there any evidence that with the high education that the trained nurses are having nowadays they are entering the practice of medicine?'

"I think that question should be answered in the affirmative. At the meeting of the New York State Medical Society there was passed this resolution: 'That the Medical Society of the State of New York affirm that the giving of an anesthetic constitutes the practice of medicine, and insist upon the strict observance of the provisions of the Medical Practice Act without subterfuge or evasion; that the delegates of the Medical Society of the State of New York to the American Medical Association be instructed to present a similar resolution to the House of Delegates of the American Medical Association at the impending session in Cleveland.'

"Well, the matter was disposed of in Cleveland, by being referred to the Council on Medical Education and Hospitals. That question is answered.

"Do the training schools complain of the nursing situation?'

"The answer is in the affirmative. One training school says, 'In order to bring out the information you desire, perhaps another question should have been asked. As you can see from this hospital's record, we admitted nine more nurses during the year 1931 than we did in 1929. Out of that class we graduated four less. In other words, the increasing of the curriculum has made the course more difficult, and more students have dropped out. The increasing standards required for passing the State Board examinations have also compelled the hospitals to dismiss students who would in all probability be unable to successfully complete the course and become registered nurses. The number of failures in 1931 and 1932 includes the individual students who failed but not the number of times they failed.'

"That is a complaint on the part of one of the training schools.

"The next question is, 'Do they pass the graduates?' This hospital is one of the leading training schools in the State of Colorado. The percentage of failures in 1931 was 25 per cent. In 1932 there was little improvement; it was almost 25 per cent. In 1933 they improved a great deal more because they paid more attention to the courses and they spent a great deal more effort in preparing their students for the examination of the State Board of Nurse Examiners.

"Another question that is asked is, 'Do the Board of Nurse Examiners have anything to do with the entrance classes?'

"The answer is in the affirmative. All the training schools, or nearly all, submit the names of their applicants on their entering the hospital, with their credentials, to the State Board of Nurse Examiners and they are approved by the Board with a charge of two dollars per head.

"That question is answered.

"Another point that is raised, is that there are very few nursing schools in Colorado that are able to give a complete course (we have mentioned that in the report), although the course is three years. They nearly all, with the exception of two schools in Denver, have to send classes to some other school to complete their course to meet the requirements of the State Board of Nurse Examiners.

"Now the Denver General Hospital and the Colorado General Hospital training schools are complete schools. They are complete units, but

the other schools are not. There is one training school in Denver that sends its pupils even to the Creighton University Hospital in Omaha to meet the requirements of the State Board of Nurse Examiners. That isn't quite true. They have to send their students out. They used to send them to one of the hospitals in Denver, but now they send them to the Creighton University Hospital in Omaha.

"There is another complaint on the part of some training schools that the cost to the hospital in transportation is a good deal and that this is a great burden to the hospital.

"The usual course that is given, we have been able to ascertain, is about a thousand hours of lectures and courses they give at the various schools. At the Children's Hospital it is even higher than that,—eleven hundred and sixty-one hours.

"We are not making any complaint against the training schools as they are. They are very excellent and doing very excellent work, but they do not meet the conditions that the doctors have to face, and they do not meet a large part of our clientele's needs.

"For instance, in a certain county,—and this is quite true in certain counties in the State of Colorado,—there are five physicians. They have no trained nurse available in this community. In one of the towns the doctor has as his competitor a practical nurse, and she is a good competitor. When he was in Denver he said that he had three confinements that would come off before he got home,—but he said, 'They are in good hands. My confrere, a practical nurse in our town, holds herself out as being quite competent to take care of these cases and ordinary ills. She practices medicine and she hasn't had any training as a nurse at all.'

"This condition is prevalent in our State and needs to be remedied.

"We don't want to lower the standards of the excellent schools that we have, but we certainly should have a standard for practical nurses. This Committee feels that it would be serving the profession and the people well if we were able to establish a school for a short course training, say perhaps of a year.

"We haven't studied this question sufficiently to put any definite period to it. We will leave that to the Committee that is going to follow us, but there is a demand for such training and many physicians feel that they can use a short course nurse in their practice to a great advantage.

"In questioning one hundred physicians, we have had a report that 84 per cent of them ask for a nurse who has had some training, while 16 per cent say that all they want is a practical nurse."

Dr. Waring: "Mr. President, during the past year I have had, for various and sundry reasons, numerous opportunities to familiarize myself with nursing education in Colorado.

"I confess that I read the report of the Committee and have heard what Dr. Rogers said with a little surprise. I am not prepared to agree entirely with his conclusions nor with some of the implications of the report."

"Suppose we take, for instance, the matter of asking the State Board of Nurse Examiners for this questionnaire. I have seen the nurses' examination questions, and think it is an amazingly satisfactorily and skillfully designed set of questions to determine the competency of the trained nurse. Not more than 10 per cent of the questions are for minor reasons objectionable; without

doubt, 90 per cent of the questions are satisfactory.

"In order that the Delegates may understand, I may say that their examinations are not conducted as our National Board of Medical Examiners conduct an examination. They can't be passed out from year to year to anybody. A set of questions is kept which is revised in some slight way from year to year. They are more or less arranged on the true and false basis. The question will be asked and the nurse can answer it in just a few words,—Yes or No,—and they involve all the necessary subjects and all the necessary training that the nurses should have.

"I have heard from various and sundry doctors that very improper questions are asked,—questions relating to things that doctors say the nurse has no business to know. I have found no such questions on the list, and I looked it all over very carefully.

"The nurses are not high-hatting the medical profession when they refuse to give out those questions. On the contrary they very cheerfully and amiably say that they are willing for any doctor or any member of this Committee to go up there and see these questions.

"I also looked over very carefully their system of marking their examinations, and was shown a five-year analysis of the nurses that took those examinations,—the ones who passed, the percentage for every training school, and they do not flunk a higher percentage of nurses than many of the other states do in the United States.

"I'd like to ask Dr. Rogers if it isn't true that we have been producing too large a crop of nurses, just as we have been producing too large a crop of doctors? And if perhaps it isn't a wise plan that we should have high standards for nurses on that basis as well as for other reasons?

"That, in a general way, represents my dissent from the report of the Committee.

"I think that it would be a very desirable thing if some Standing Committee of this Society should meet regularly with the nurses. I know that not only the Colorado State Nurses' Association, but the State Board of Nurse Examiners would be glad to do this.

"There is no question that there are abuses that should be corrected but the best way to correct them is for the doctors and the nurses to get together."

Dr. Jaffa: "I'd like to ask a few more questions that occurred to me as Dr. Rogers talked. Maybe I will answer them.

"As to the number of failures occurring in the examinations at the State Board of Nurse Examiners, I wonder, Dr. Rogers, if any check was made on the figures in Colorado as compared with any of the other states. For example, I noticed the figures were about 19 per cent in Colorado for an average of about four years, as against 30 per cent in California over the same period.

"As to the question of the nurse practicing medicine, I took the trouble to go to one of the registries in Denver, the Central Registry, which tells me that they register about four thousand calls a year, both graduate and practical nurses. They tell me that in four thousand calls they have had not one complaint from doctors that graduate nurses have been practicing medicine, or suggesting medicine to their patients, while complaints against the practical nurses suggesting medication and practicing medicine are a common, every-day occurrence.

"I don't know whether complaint has been made to the Board or not concerning nurses who are

actually engaged in the practice of medicine, but I do know that in a great many cases where a practical nurse has charge of a case, after the doctor has been there and gone he doesn't see the patient again. Some other doctor is called in on the advice of the practical nurse, and as often as not this may be a doctor who belongs to one of the cults.

"Coming back to the questions (I think Dr. Waring covered that very carefully), I wondered, Dr. Rogers, if these questions which you were told were asked by the Board have been checked against the actual questions. I know one such question which you mentioned to me, and that question I failed to find in the list of questions. I have asked a number of others who have mentioned this same thing, and the questions which are supposed to have been asked failed to appear in the examinations or else they appear in an entirely different form.

"Another question that Dr. Rogers raises concerns the number of nurses in the State. I got these figures from the State Board:

"From 1920 to 1930, with 10.2 per cent increase in population, we have 38.4 per cent increase in the number of trained nurses, graduates who have been licensed by the State Board.

"There are at present fifteen accredited schools in eighteen hospitals, with a student enrollment of 1,002. There is an estimate that in September of this year about 350 new student nurses will be enrolled.

"There is only one other thing that I might suggest: Dr. Rogers mentioned a letter received in May regarding the appointment of a Committee from the State Board of Nurse Examiners. He suggested this letter but didn't read it. I think that letter demonstrates the fact that the State Board of Nurse Examiners is ready and willing in every way to cooperate with the State Medical Society or any other organization which might be engaged in constructive work, which might have any constructive criticism to offer. It was a very comprehensive committee. This committee held themselves in readiness to cooperate with the Committee from the State Medical Society at any time, either in the question of going over the examination questions and discussing the method of grading, discussing the system in vogue in any of the schools, or in considering any questions or any considerations which might be brought up for the betterment of nursing in the State.

"I believe that if the Committee on Nursing Education from the State Medical Society would work with the State Board of Nurse Examiners, and with the nursing organization in this state, almost anything constructive that might be offered could be brought about readily."

Dr. Rogers: "Mr. Chairman, some questions have come in.

"The question to which Dr. Jaffa refers, comparing what we have heard with the actual questions, is one that we have no way of verifying. What we should have done, was to consult Dr. Waring, and we'd have gotten the information. But we didn't get it.

"This isn't an attack on the training schools. The training schools are excellent and the standard is high. But what we need is a short training course for nurses who will do bedside nursing, especially in the outlying districts.

"The number of training schools in 1880 was fifteen. In 1900 they had grown to 432 and in 1929 there were 2,205 training schools in the United States. In 1880 the graduates in the United States were 157. In 1900 there were 3,456,

and in 1929 there were 25,300. These are graduates from training schools where they take the examination for registration as a registered nurse.

"There is a high professional mortality in nurses. As near as we can get it, the average professional life is about seventeen years. Marriage claims a large number of nurses. About 25 per cent of them drop out at the end of the third year, and about 50 per cent at the end of the eighth year.

"There is a great difference in the distribution of nurses. Nurses tend to become centered in certain areas. They want to go to the large centers of population. In one town the relationship of nurses to the population is 1 to 119, and in some places it is as low as 1 to 5,391, so there isn't a good distribution of the nurses.

"This proposal in the printed report, that such a school might be considered, shows that there is a distinct demand for short-term nurses in spite of the large number being turned out by the training schools. I think if we ask a hundred doctors, we will find that fifty of them will agree with that."

The report of the Committee on Nursing Education was referred to the Reference Committee on Reports of Committees.

President Webb then asked for a report of the Committee on Public Health. It was as follows:

REPORT OF THE COMMITTEE ON PUBLIC HEALTH

August 27, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Committee on Public Health has met thirteen times during the past year. The members of the State Board of Health have been invited to meet with us on several occasions and have done so.

Together with the State Board of Health, we felt that our very high incidence and very high death rates from infectious intestinal disease, when compared with rates obtaining in the U. S. Registration Area and with the rates of all our neighboring states except New Mexico, represented the sorest spots in our rather sorry health picture.

A careful survey of the death rates from typhoid fever and infant diarrhea in Colorado was made by one of the Committee and the facts presented before a combined meeting of state and city health officials and the Colorado Municipal League at Pueblo last December. This report was published in January, 1934, Colorado Medicine. It showed that practically all our high rates from infectious intestinal disease occur in counties whose irrigation water is grossly contaminated with sewage dumped untreated by our towns and cities. In the counties, which incidentally comprise half the state, in which irrigation water is not grossly contaminated by sewage, rates from intestinal disease are almost uniformly low and compare most favorably with conditions throughout the country.

Copies of the report have been sent by your Committee to a few influential citizens in all towns and cities dumping raw sewage into our streams with a letter expressing the hope that they will inform others in their communities. Letters have been sent Denver officials and civic organizations apprising them of the need of a sewage disposal plant for that city, since because of its size it is the worst offender in stream pollution.

Your Committee this spring requested the State Board of Health to demand that each town and city take steps to stop the dumping of untreated sewage into irrigation streams, for it is against the Colorado law to pollute in any way the streams of the state. This it has done. We requested further that steps be taken to enforce this demand. Paul P. Prosser, Attorney General of the state, has been asked for a ruling as to the powers of the State Board of Health in enforcing the law. No reply has been forthcoming, although several months have elapsed since this request was made.

We feel that the answer to the problem of our high incidence and high death rate from infectious intestinal disease in Colorado lies in educating the people to the dangerous condition which now exists in parts of the state and that in this spread of information every member of this Society should take part. The people of this state are too alive to matters of elementary sanitation to permit a revolting situation such as now exists long to endure.

Respectfully submitted,
EDWARD N. CHAPMAN, Chairman
J. W. AMESSE,
MARGARET LONG.

Dr. Chapman: "In view of what we say in this report with regard to the Attorney General of Colorado, and in view of the arrival of a letter from the Board of Health this noon, I want to add a word. With your indulgence I will read the paragraphs that deal with the Attorney General. The letter arrived too late for any action by the committee. Two recommendations of the Attorney General's office read as follows:

"First, that Colorado State Medical Society occupy itself in a campaign of persistent publicity bearing upon the dangerous results of the present situation and the imperative necessity of protective measures and the exertion of constant pressure upon the State and local Boards of Health, urging them to insist that the local communities correct the existing evil.

"Second, that statutes be introduced and passed by the coming General Assembly enlarging and clarifying the powers of the State Board of Health and clearly empowering the Board to inspect and condemn fruits and vegetables grown for human consumption either before or after the same are placed upon the market."

"It would seem to me that there is no doubt but that the intent of the Colorado law is that there shall be no pollution of the streams of the State with sewage. In this letter nothing is said about Paragraphs 6982 and 6893 of the Compiled Laws of 1921 which clearly take up that matter."

The report of the Committee on Public Health was referred to the Reference Committee on Reports of Committees.

President Webb: "Have we any Unfinished Business? There is the report of the Committee on Workmen's Compensation Affairs. They have had no meetings this year because no matters have been brought to Dr. Hanford's Committee.

"Now we come to the next order of business, which is New Business. The first thing is the election of a Nominating Committee. I want to remind the delegates that the Nominating Committee is limited to five members, not more than one from one County."

The following delegates were nominated: Dr. Woodcock, Dr. W. A. Campbell, Dr. Harold T. Low, Dr. G. Heusinkveld, Dr. Hardesty.

There being no further nominations, the Executive Secretary cast the unanimous ballot for

the election of the above-named as the Committee, upon motion by Dr. Norman, seconded by Dr. Yegge and carried.

The President called for additional new business.

Dr. Low: "This proposition of selling barbiturates in bottles to the general public is getting to be something that we should take cognizance of. I think that the Public Policy Committee should be instructed to investigate the laws of California and other states that deal with this subject, and be empowered to introduce into the next Legislature of the State of Colorado a bill putting such drugs on the narcotic list."

The suggestion was referred by the President to the Committee on Miscellaneous Business.

Dr. Bortree: "I'd like to present the following resolution on behalf of the Board of Trustees:

RESOLUTION

"Whereas, It was determined by the House of Delegates at the Sixty-third Annual Session of the Colorado State Medical Society that hereafter all Past Presidents of the Society should be accorded the privileges of the House at all times, without vote, and

"Whereas, This determination was not incorporated into a standing rule of the House, now therefore be it

"Resolved, By the House of Delegates of the Colorado State Medical Society, assembled at its Sixty-fourth Annual Session, that at this and all subsequent sessions, subject to repeal, it be a standing rule of the House of Delegates that all Past Presidents of the Colorado State Medical Society be accorded the privileges of the floor of the House of Delegates, without vote."

Dr. Bortree moved adoption of the resolution; seconded by Dr. Low and carried.

Dr. Bortree then presented the following resolution:

"Resolution adopted by the Colorado State Board of Medical Examiners the 30th Day of August, A. D. 1934.

"That Whereas, The attention of this Board is frequently directed to the fact that illegal operations have been performed but that in a great majority of cases the patient, after recovery, refuses to testify against the physician who performed such operation and therefore it is impossible for this Board to take disciplinary action against such physicians or for the various district attorneys to successfully prosecute the physicians performing such operations, and

"Whereas, It is the opinion of this Board that the practice of illegal operations may only be eliminated by the united cooperation and action of the licensed physicians of this state and that the practice might be eliminated by the obtaining by the physicians of this State, when called upon to treat a patient suffering from the effects of illegal operations, of a waiver by said patient of the Privileged Communications Statute of the State of Colorado, including a promise of such patient to testify, herself, against the person performing such illegal operation and to consent to the physician testifying as to any facts disclosed by her to him as his patient and while undergoing such treatment. Now therefore be it

"Resolved, That the Colorado State Board of Medical Examiners request the Colorado State Medical Society at its next convention to pass a resolution binding all physicians who are members of this Society to obtain, before undertaking the treatment of a person upon whom an illegal operation has been performed, the following information and contractual promises:

"1. The date of the illegal operation, specifying the place where it was performed and the name and address of the person performing the same.

"2. The price agreed to be paid for such operation, and the amount of money actually paid, together with the date and manner of payment.

"3. The signed agreement of such patient to testify if requested against the person performing the operation in any proceeding against such person before the Colorado State Board of Medical Examiners or in any criminal prosecution instituted against such person in any Colorado court.

"4. A signed consent of such patient to the physician testifying in any proceeding before

the Colorado State Board of Medical Examiners or in any criminal prosecution instituted in a Colorado court against the person performing such illegal operation as to the information disclosed by such patient to the physician as set forth herein.

"That in the event the Colorado State Medical Society passes such resolution, that it instruct its officers to prepare blank forms upon which the above information can be written, together with form of contract, and supply such forms to all physicians within the State of Colorado.

(Signed) "FRANK R. SPENCER,
"GERALD B. WEBB,
"RODNEY WREN,
"V. A. HUTTON,
"E. B. SWERDFEGER,
"D. L. CLARK,
"JOHN GALEN LOCKE,
"NOLIE MUMBY,
"WHITRIDGE WILLIAMS."

President Webb: "You have heard this resolution. I understand from the Constitution and By-Laws that the House of Delegates could not make a binding order of the request of that Board, but they could recommend it to the profession and members. Would you like to discuss it?"

Dr. Low: "I'd like to ask the opinion of the Chairman. Have you had legal advice on this question, whether you can bind the patient to any such thing legally?"

President Webb: "That I don't know."

Dr. Low: "I think the whole thing is illegal. I thoroughly agree with the object in view, but anyone giving that statement is liable to prosecution himself. I don't think it can be done."

Dr. Heusinkveld: "That is all very well but after all we are neither investigators nor policemen. It is up to the conscience of those who do these things, and let us let it go at that. We are not investigators for the Board of Medical Examiners. There are civil officers for that purpose. After all, we are physicians. If you refuse to take care of someone until she divulges such information, there will be numerous cases where she will refuse to say anything, and will put off from day to day going to a physician when she needs immediate attention and medical treatment at the earliest possible moment."

President Webb: "A point well taken. Is there any further discussion? What is your wish in this matter? Would you like to act on it or refer it to a committee and act on it later?"

Dr. McClanahan asked that a matter of this importance be referred to a committee.

President Webb: "The President will refer it to the Committee on Miscellaneous Business."

Dr. Andrew: "Mr. Chairman, I believe that I am in order, under New Business. There is a little matter that I think is of vital importance to all of us. The Chairman of the Legislative Committee of the Hospital Association of Colorado has been invited to submit a program of proposed legislation to our next legislature on a matter that I think concerns the doctors even more than the hospitals. It is a matter of responsibility of automobile drivers, as to their contracts for service rendered by both physicians and hospitals. A lien law is worthless unless it is supported by something concrete and tangible. Compulsory insurance laws governing the driver have many loopholes as they have been enacted in other States.

"The most plausible scheme seems to be that which has been adopted recently by twenty-three States and Provinces of Canada,—the financial responsibility law, wherein the driver, if he injures person or property, is subject to the law of producing property, a surety bond or assets to the extent of the amount that is specified until all claims are released. He is not permitted to

drive his automobile until such release has been made.

"Should the Colorado Hospital Association attempt to present this bill to the next legislature, the Association is so small, the personnel of it is so small, that we'd make little progress.

"The statistics on accidents that occur upon our public highways have come to be quite a record. A corporate body or an individual who is unfortunate enough to have someone injured on his property is liable for that accident, while the State and the Government remain exempt.

"I contend that the Government and the State should assist us in taking care of bills that are incurred for the treatment and care of persons injured on our highways.

"Forty-seven and a fraction per cent of the actual cost for the care in institutions is all that is collected for the total of accidents that occur. A smaller percentage for the medical and surgical care is collected for the same accident.

"I care not whether you are a Republican, a Democrat, a Communist, a Socialist or what you are, this is the legislative year coming on. A financial responsibility law will not entail any expense to the State, if enacted. All the State has to do is to see to the execution of it, and therefore we should ask for this help.

"We come from all sections of the State, we know our Representatives and our Senators who will be elected. I hope that you choose a man who will vote his own conviction, a man who can be approached and talked to in a tolerable and sensible way on this matter, so we can cite to him all we have endured in this matter of negligence that occurs on our public highways.

"I have no authority to tie the Colorado Hospital Association in with the Medical Society on this matter. I feel, from the reading and investigation that I have made to date, that we will have little opposition from insurance companies, from the legal fraternity, who usually block such a procedure. It is only a fair proposition that a man must be able to furnish financial responsibility for the privilege of driving an automobile.

"To put teeth in such a law it will be necessary to have a clause inserted that he shall not be released until all his obligations are satisfactorily arranged.

"I would like to have the sentiment of the House of Delegates on this proposition,—whether it is proper for us to recommend it to the Public Policy Committee, which, I presume, is already appointed, or whether it is best to leave it to them to consider the matter. But I'd like to have a little slant from the members of this House as to their feeling in regard to this matter.

"I can give you figures. I can name the States that have these laws. They seem to be very satisfactory."

Dr. Barnard moved that the matter be referred to the Committee on Public Policy; seconded by **Dr. Rogers** and carried.

Dr. Waring: "Mr. President, a week ago my friend, Dr. Robert Levy of Denver, came to me with a resolution which he asked me to present to the House of Delegates. Since I agree thoroughly with the sentiment and with the resolution, I told him I'd be very glad to present it to you.

RESOLUTION

"Whereas, Civilized peoples have never discriminated against anyone who contributes to medical science or against one who is qualified to engage in the healing of the sick because of his race or religious beliefs or economic views, and

"Whereas, Under the Nazi regime persons who are engaged in research or the practice of medi-

cine have been either barred or expelled from their laboratories and clinics without justice or reason other than that they differed in racial origin or religion from that of their colleagues, and

"Whereas, Our brother physicians are not permitted to practice medicine or surgery in any capacity and are expelled from medical societies and clubs in spite of their previous noteworthy contributions to science and medicine, and

"Whereas, German medicine previous to the past year has made outstanding contributions in the field of human progress, and

"Whereas, Measures instituted by the present Nazi Government are doing incalculable harm to the progress of medicine throughout the world; therefore be it

"Resolved, That the Colorado State Medical Society wishes to record its abhorrence and to voice its resentment of such practices as being unfair, inhuman and inimical to progress in medicine generally and a violation of those humane ideals which are amongst the cherished traditions of the medical profession, and be it further

"Resolved, That the delegates of this House to the American Medical Association be instructed to register the protest of this body."

"I submit that resolution and I should like to say, in addition, on Dr. Levy's authority, that the New York Academy of Medicine has passed such a resolution and other medical societies in the United States have done similarly."

President Webb referred the resolution to the Committee on Miscellaneous Business, and asked if there was any further new business.

Mr. Sethman: "In order to lay it officially before the House, since it cannot be acted on the same day it is presented, I will present, on behalf of the Board of Councillors, the proposed amendment to the By-Laws mentioned in their report.

"Proposed Amendment to the By-Laws of the Colorado State Medical Society:

"Amend Chapter XIV, entitled 'Ethics,' by adding a new section thereto to read as follows:

"Section 2. Advertising to or solicitation of the laity, by any group, clinic, hospital, sanatorium or related institution, or by any corporation, association, society or other organization, educational, religious or otherwise, engaged in the care of the sick, except as authorized by the Council of this Society or the Board of Censors of the interested constituent society, shall be construed as equivalent to advertising and solicitation by the physicians employed by or associated in any professional capacity with the offending institution, and shall subject such physicians to discipline."

There being no further business to come before the House, the meeting adjourned.

SECOND MEETING OF THE HOUSE OF DELEGATES

9 a. m., September 20, 1934

The session was called to order by President Webb, pursuant to adjournment.

The roll was called by the Executive Secretary, who announced forty delegates present, constituting a quorum.

President Webb announced that the scientific program would start promptly at 10 o'clock, and Dr. Bortree moved that the House of Delegates adjourn this session at 9:50 a. m. Motion seconded by Dr. K. D. A. Allen and carried.

Motion was made that reading of minutes of previous meeting be dispensed with; seconded and carried.

Reports of Reference Committees were in order.

Dr. Johnston read the report of the Committee on Reports of Officers, as follows:

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF OFFICERS

The Committee on Reports of Officers reports favorably for this year. We wish to call your attention to certain points in the individual reports.

We commend the regular business meetings of the Board of Trustees and feel that their active interest in post-graduate clinics and the problems of the Economics Committee has helped the whole State.

The Board of Councillors has functioned and we recommend the adoption of their resolution as a By-Law.

The Constitutional Secretary has contacted the County Societies in a pleasing way.

The report of the Executive Secretary is cheering. The increase in membership is hopeful and the organization of new units is encouraging, indicating that in these strenuous times there is developing in the profession a tendency to unite when we have a definite plan and a business manager to maintain it. Federal Relief contact by the State office has been difficult and not especially gratifying, even with sixty thousand dollars, but the individual patient-physician relationship has been preserved.

We call especial attention to the report of the delegates to the A. M. A., and urge each delegate to this House to take this in detail to his County Society. This parallels the report of our State Executive Secretary and states concisely the principles of the immediate economic problem of organized medicine.

Respectfully submitted,

R. S. JOHNSTON,
H. I. BARNARD,
O. E. BENELL.

On motion made by Dr. Corper, seconded by Dr. Waring, and carried, the report was accepted.

The President then called for the report of the Committee on Reports of Committees, which Dr. McClanahan, Chairman of the Committee, read as follows:

REPORT OF THE REFERENCE COMMITTEE ON REPORTS OF COMMITTEES

We recommend the acceptance of the Report of the Committee on Scientific Work as published in the Handbook and we especially commend the Committee's plan of submitting a questionnaire to each member.

We compliment the Committee on Arrangements for the excellent program which it has presented and advise the acceptance of this report.

The Committee on Public Policy deserves commendation for its conscientious work and its wise recommendations and we advise the acceptance of the entire report.

The report of the Committee on Publication is complete as it is printed in the Handbook and we recommend its acceptance.

The report and final recommendation of the Committee on Medical Defense meets with our entire approval and we recommend its acceptance as it stands, especially its recommendation that physicians be cautious in criticizing the work of their colleagues.

The Committee commends the work done by the Committee on Medical Education and Hos-

pitals and recommends that all complaints be dealt with as was done during the last year.

We believe that the criticism of the Committee on Library and Medical Literature is a point well taken, but we realize that the promise of the Library Trustees and Director solves the problem.

The report of the Committee on Cooperation with Allied Professions as printed in the Handbook is complete as it stands and we recommend its acceptance.

Your Committee advises the acceptance of the report of the Committee on Medical Economics and congratulates this Committee on the amount of work done in trying to solve the numerous economic problems relating to the medical profession. Realizing that the report is full of fireworks we recommend that it be submitted to complete discussion by the House of Delegates.

The amount of work done by the Committee on Postgraduate Clinics deserves hearty commendation and we advise the acceptance of its report.

Your Committee recommends that the report of the Committee on Military Affairs be accepted as printed in the Handbook.

In advising the acceptance of the report of the Advisory Committee to the School of Medicine we realize the seriousness of the condition of affairs and recommend that the report of this Committee be thoroughly discussed by the House of Delegates.

The report of the Committee on Cancer Education does not at all exaggerate the importance of the subject and we advise the acceptance of the report and the continuation of this Committee.

Report of the Committee on Nursing Education. In our opinion the strictness of the requirements for licensure by the State Board of Nurse Examiners is of economic origin and is designed to restrict the number of graduates as well as to improve their qualifications. We believe, therefore, that this matter will be difficult to solve, but we nevertheless recommend the acceptance of the report of the Committee.

The report of the Committee on Public Health is one of the most important that we have to consider. Owing to the appalling effects of the dumping of sewage into the irrigation and other streams, we recommend the acceptance of this report and the strict enforcement of all laws for the prevention of this crime.

Your Committee recommends that the report of the Committee on Workmen's Compensation Affairs be accepted as printed in the Handbook.

A. C. McCLANAHAN,
JOHN R. ESPEY,
D. A. VANDERHOOF.

Dr. McClanahan: "In submitting this report, I should like to point out that the Reference Committee on Reports of Committees covers the reports of sixteen committees. Each one of those committees has had a year to prepare its report and we had a few hours last night to analyze and appraise these reports and make our recommendations. I hope that fact will be taken into consideration in disposing of this report."

President Webb: "Thank you, Dr. McClanahan. We are most grateful for the Reference Committee's arduous labors of last night. The Chair will recognize Mr. Sethman to speak on this matter."

Mr. Sethman: "Mr. President, noting that the reports of three of the committees,—those on Medical Economics, Advisory to the School of Medicine, and on Nursing Education,—apparently require further discussion by the House, may I

recommend that consideration be laid over until the other reference committees have completed their reports, to facilitate this morning's business on account of the motion for adjournment that has been passed?"

Motion to follow this suggestion made by Dr. Vanderhoof, seconded and carried.

President Webb called for the report of the Reference Committee on Audits and Appropriations, which was made by Dr. George H. Curfman as follows:

REPORT OF THE COMMITTEE ON AUDITS AND APPROPRIATIONS

September 20, 1934.

To the House of Delegates of the Colorado State Medical Society:

We have examined the certificate of J. Leon Hartsfield, Certified Public Accountant, and hereby accept his certificate, entitled: "General Audit of the Accounts and Records of the Colorado State Medical Society for the Year Ended August Thirty-first, 1934."

In attempting to correlate the annual reports of the Treasurer, the Executive Secretary, and the Certified Public Accountant, we find certain discrepancies which are hard for our Committee to reconcile, although the final figures are completely in agreement. The funds are fully accounted for.

We therefore recommend that the Certified Public Accountant make such revision in the system of the annual reports as may be necessary to simplify the work of the Auditing Committee. Under the present system the Certified Public Accountant certifies the annual report of both sets of books, the Treasurer's and the Executive Secretary's, as well as the financial condition of the Society. The three financial reports which we must consider differ very much in numerous details. These three reports are the Treasurer's Annual Report, the Executive Secretary's Annual Report, and the several exhibits of the Certified Public Accountant.

We note under the Library Fund disbursements totaling \$499.08, of which 50 per cent was allocated to the purchase of books by action of the House of Delegates. We note quarterly payments of \$62.50 for maintenance, for which no accounting is required. The balance of \$249.08, which was to have been expended for the purchase of books, shows three items totaling \$95.45 which was apparently paid for the binding of medical publications rather than for the purchase of books as directed. We therefore recommend that in the future the decision of the House of Delegates to expend 50 per cent of the annual library appropriation for medical books and periodicals be complied with.

We recommend the adoption of the Budget for the fiscal year of 1934-1935 as published in the 1934 Handbook on Page 7*, which is the Budget submitted by the Board of Trustees.

Respectfully submitted

GEORGE H. CURFMAN, Chairman.
W. B. YEGGE,
R. B. PORTER,
L. W. BORTREE, Ex-Officio.

President Webb: "Is there any discussion, or any question you would like to ask Dr. Curfman?"

Dr. Waring: "Perhaps it might be wise if Mr. Sethman would explain how it happened that such an amount of money was spent for the binding of books rather than the purchase of books, be-

*See Page 383, this issue.

cause that arrangement was made by Dr. Kenney, as I understand it, with the Committee or with Mr. Sethman. I had nothing to do with it and I can't explain it."

Mr. Sethman: "Mr. President, since I did not sit with the Committee on Audits and Appropriations last night, I don't know just exactly what figures they went into. So far as the system of paying library accounts is concerned, it has always been a rule of our office that we do not issue any voucher for a library expenditure unless the invoice or bill, whatever it may be, carries the o. k. of a member of the Library Committee. For the last two years those o. k's. have been by Dr. Frank W. Kenney of Denver, who is a member of that committee."

"The vouchers are made out in my office, then signed by the President, and eventually issued by the Treasurer. Perhaps Dr. Bortree, who sat with the Committee last night, could say something further about it."

Dr. Bortree: "Last night, after the Auditing Committee got to work,—and I want to say it is the first auditing committee that has functioned 100 per cent in the eight years I have been Treasurer,—they tried to reconcile the C. P. A.'s figures with my figures, which is a thing I have never been able to do satisfactorily for myself, but they made me do it last night!"

"When they got to the subject of library appropriations, they asked for the details of library appropriations, and I had the list of vouchers that had been issued on this library account totaling \$499.08. They asked me to explain what that was for and I explained that the quarterly payments of \$62.50, totaling \$250, was for upkeep of the library; the balance was supposed to be for books."

"When they analyzed these figures they found three vouchers which had been issued to the Jewish Consumptive Relief Society of Denver. They have a book-binding establishment in connection with the institution. They don't make medical books. The Committee drew its own conclusions."

"Apparently the rest of the vouchers were made out to Scribner's or to some foreign account and apparently were all for the purchase of books, except this \$95. These figures were secured from the books of the Treasurer, which were open to the Committee, of course, at all times."

There being no further questions, Dr. Curfman moved adoption of the Committee's report: seconded by Dr. Johnston and carried.

President Webb called for the report of the Reference Committee on Miscellaneous Business, which was given by Dr. J. D. Carey, as follows:

REPORT OF THE COMMITTEE ON MISCELLANEOUS BUSINESS

Your Committee submits the following resolution to the House:

RESOLUTION

Whereas, This, the Sixty-fourth Annual Session of the Colorado State Medical Society, will long be remembered as the largest and most successful meeting yet conducted by our organization; and

Whereas, The success of this Annual Session is due in large part to the helpful cooperation of many individuals and organizations in the City of Colorado Springs; now therefore be it

Resolved, By the House of Delegates of the Colorado State Medical Society, that the sincere thanks of the Society be extended to all those who have contributed to the success of this meeting and especially to the officers and members of the El Paso Medical Society, the management of the Antlers Hotel and the Gazette-Telegraph newspapers; and be it further

Resolved, That this resolution be spread upon the permanent records of this Society.

The Committee on Miscellaneous Business hereby recommends that the Resolution introduced by Dr. Harold T. Low concerning the promiscuous sales of sedatives, soporifics, etc., be referred to the Committee on Public Policy to be presented in proper form to the next Colorado Legislature.

Concerning the resolution offered by Dr. Levy, we wish to state that we are informed this matter was presented to the A. M. A. in 1933 and 1934 and we therefore do not see fit to recommend that our delegates to the A. M. A. be instructed to present this matter. We are in favor of the other sentiments in this Resolution.

Concerning the resolution submitted by the Colorado State Board of Medical Examiners, in regard to securing evidence against illegal operators:

While we are in sympathy with the spirit of this Resolution, we recommend that it be rejected. We believe the securing of such legal information is not a true medical function, furthermore we question the legality of such a procedure.

Respectfully submitted,

J. D. CAREY, Chairman,
J. W. KINZIE,
GEORGE B. PACKARD.

The report was adopted, upon motion of Dr. Carey, seconded and carried.

The President then called for the report of the Nominating Committee. Dr. Harold T. Low gave the following report:

REPORT OF THE COMMITTEE ON NOMINATIONS

September 20, 1934.

To the House of Delegates of the Colorado State Medical Society:

Your Committee on Nominations begs leave to report that it makes the following nominations for the Sixty-fourth Annual Session:

For President-elect—Walter W. King of Denver.

For First Vice President—Royal H. Finney of Pueblo.

For Second Vice President—C. E. Lockwood of Montrose.

For Third Vice President—F. A. Humphrey of Fort Collins.

For Fourth Vice President—G. E. Calonge of La Junta.

For Delegate to the A. M. A.—J. W. Ames of Denver (two year term).

For Alternate to the A. M. A.—A. J. Markley of Denver (two year term).

For Councillor for District No. 7—A. L. Burnett of Durango (three years).

For Councillor for District No. 8—Lee Bast of Delta (three years).

For Councillor for District No. 9—W. W. Crook of Glenwood Springs (three years).

For member of the Committee on Publication—C. S. Bluemel of Denver (three years).

For the place of the Sixty-fifth Annual Session, in 1935, Stanley Hotel, Estes Park, Colo.

For the time of the Sixty-fifth Annual Session—September, 1935, the exact dates to be fixed by the Committee on Scientific Work and the Secretary.

Your Committee on Nominations approves of the request of the Treasurer for the appointment of an Assistant Treasurer for this coming year, so that a member of the Society may familiarize himself with the financial records of the Society before the expiration of the present Treasurer's

term of office. Your Committee nominates Dr. John B. Hartwell of Colorado Springs for the position of Assistant Treasurer.

Respectfully submitted,

HAROLD T. LOW, Chairman,
BURGETT WOODCOCK,
GERRIT HEUSINKVELD,
W. B. HARDESTY,
W. A. CAMPBELL, JR.

President Webb: "This report by the Nominating Committee is not adopted at this meeting, but is placed on file without any motion.

"Now we have an amendment to the By-Laws which is offered by the Council."

Mr. Sethman re-read the proposed amendment to Chapter XIV of the By-Laws. (See Page 402.) On motion, regularly seconded, and passed unanimously, the amendment was declared adopted.

President Webb: "We can now discuss Dr. McClanahan's report. You all heard Dr. McClanahan's report. Do you want to start the discussion, Dr. McClanahan?"

Dr. McClanahan: "I move that the report be adopted with the exception of those sections referring to the Committees on Medical Economics, Advisory to the School of Medicine and Nursing Education."

Motion seconded by Dr. Bortree and carried.

Dr. Boyd: "May I ask if that includes the amendment proposed by the Committee on Medical Economics?"

President Webb: "That is open to discussion of the House now."

Dr. Boyd: "Mr. Chairman, Delegates: I wish to enter an unqualified protest against adoption of the Economics Committee report on two grounds,—that it is not scientific and that it is equivalent to a repudiation of a moral obligation. "Fundamental facts are ignored by the Committee in the proposed amendment. Fragmentary and purely supplementary facts alone are considered, and these are reviewed in a manner that leaves their significance unrevealed.

"The scope of medical economics, I maintain, extends beyond mere collection of fees and dickering over fees, notwithstanding that such limitations are in a way imposed upon our economics by the amendment in question.

"Economics is concerned with production and exchange in organized society; hence, medical economics naturally deals with the production and exchange of medical service.

"Inherent in any civilized economic system is social obligation, although it is frequently far from apparent. It is not apparent in the economic recommendations of our Committee. In fact, this inherent responsibility of a sound economic system is disposed of by the Committee with a verbal flourish and nothing more.

"The first and most emasculating error in the proposed amendment to the State Society's By-Laws is its acceptance of our present politico-economic creed as the basis for development of a perfect social organism without recognizing any of the evils injected into the application of this creed. Blinded by preconceived ideas and personal biases, the Committee members have endeavored to present a method of relief that will accord with the land-and-industrial-serf system against which the world is now openly rebelling. In their blindness to the moral obligations involved in any sound economic system, they have failed to perceive the biologic inconsistencies and negations in their recommendations.

"Until you establish a body of social rules based upon the natural relationship between man

and the land and embodying appreciation of production as offering the only legitimate foundation for ownership,—until you recognize that ownership inheres only in the thing produced and that it must not be extended to the producing medium,—you will continue to bolster a modified feudalism by aiding and abetting man's control over man, by exalting proprietary interests above consideration to humanity itself.

"How can you reasonably expect to cultivate the creative powers of a nation while you continue to sacrifice its creations?"

"It is certainly economically as well as psychologically unsound to increase an ever-increasing power of appropriation, thereby diminishing control of their creations by the creators. In other words, how can you continue to take a larger and larger moiety of the worker's product, establish increasing physical domination over his life and thought, foster a steadily-expanding control over the natural resources upon which he depends for existence, without bringing about a corresponding diminution of the worker's enthusiasm and application?"

"These are problems a virile and courageous Economics Committee should ponder instead of concentrating on the question of how much the medical profession can participate in the exploitation of the creators.

"These things are only hinted at here, due to time limitations, but our Medical Journal should open its columns to more extended discussion.

"Problems of economic procedure, whether in the medical or industrial fields, are not solved by smug assertions regarding bases of bargaining, although the Economics Committee appears to be laboring under the delusion that a bargaining resolution is the answer. Its report is little more than a statement of attitude. Hence, it offers no fundamentally remedial suggestion relative to a condition which it points out has steadily become more intolerable.

"What this profession needs is a Committee that will unearth facts and then face those facts in an intelligent manner. Such a manner must necessarily include a search for an adjustment of our economic woes along lines in harmony with biologic evolution. Dictatorial proclamations in confirmation of fundamental economic flaws and affirming dollar-gathering policies are not only unscientific but unpatriotic and obstructive.

"Until the medical profession recognizes the simple facts I have hastily surveyed, it will be subjected to compulsory labor upon terms fixed by the controllers of the economic system that is sapping the life of this nation.

"Whether we admit it or not, we of the medical profession are slaves of the same system that is perpetuating agricultural and industrial serfdom. To free ourselves we must aid in the freeing of others, and to do this we have no alternative but to demand an Economics Committee that will assemble and evaluate facts in the light of known biologic and economic laws instead of framing a proclamation of independent evasion."

Dr. Johnston: "I believe if we are really to discuss this we should have a motion before the House, and at present there is really no motion before the House. In order to get it before the House, I move the adoption of the report of the Medical Economics Committee. That doesn't necessarily mean that I agree with it, but I believe legally that is the way to attack the problem."

President Webb: "That doesn't include the amendment to the By-Laws that they have suggested."

Dr. Johnston: "I will change the motion; this is simply on the amendment."

President Webb: "This is a matter of discussion of the report of the Economics Committee. Do you wish a motion on that?"

Dr. Johnston: "I move the adoption of the amendment."

The motion was seconded by Dr. Boyd. Dr. Waring asked to have the amendment read. Dr. Cooper read the amendment, which had been published in the September issue of "Colorado Medicine." The President stated the question was open for discussion. Dr. Cooper took the floor and discussed the amendment at length, reading in part from the September, 1934, issue of "Colorado Medicine." (See Colorado Medicine, September, 1934, Page 296: "Shall the State Medical Society Assume Control of Admissions to Charity Clinics and Hospitals?; A Discussion by the Committee on Medical Economics of the Colorado State Medical Society.") Dr. Cooper's discussion was interrupted by adjournment and President Webb announced that it would be continued at a meeting of the House of Delegates at 4:30 p. m. the same day, Thursday, September 20, 1934.

Dr. Bortree moved that the meeting adjourn: seconded and carried.

THIRD MEETING OF THE HOUSE OF DELEGATES

4:30 p. m., September 20, 1934

The meeting was called to order by President Madler.

Dr. Bouslog, Constitutional Secretary, called the roll and announced a quorum.

Dr. Bortree moved that the reading of minutes of the previous meeting be dispensed with; seconded by Dr. Vanderhoof and carried.

Dr. Bortree presented the following resolution and moved its adoption:

RESOLUTION

Whereas, The Colorado Pharmacal Association, at the Legislative Session in the year 1929, sponsored and secured the passage of a College Graduation Pre-requisite Law for registered pharmacists, and

Whereas, Said law went into operation and effect in May, 1934, and since said date no applicant for examination for registered pharmacist is accepted unless he is a graduate from a four-year course at a College of Pharmacy approved by the Colorado State Board of Pharmacy, and

Whereas, During the first Special Session of the Colorado General Assembly in 1933 an attempt was made to postpone the operation of said Pre-requisite Law for a period of two years and it is possible that an attempt might be made during the session of the Colorado General Assembly which meets in January, 1935, to modify or repeal said law, now be it

Resolved, By the House of Delegates of the Colorado State Medical Society:

1. That this Society commend the Colorado Pharmacal Association for its progressive attitude in having secured the enactment of a College Graduation Pre-requisite Law for pharmacists,
2. That this Society feels that a modification or repeal of said law would be a backward step and therefore instructs its officers to actively oppose any attempt to modify or change said Pre-requisite Law if or when attempted.

Adoption of the resolution was seconded by Dr. Mugrage and carried.

Dr. Allen: "I was asked to present a resolution, and I personally approve of it. Therefore I am very happy to present it:

RESOLUTION

Whereas, The Colorado State Medical Society in 1922 passed a resolution expressing disapproval of the free diagnostic service given by the State

Board of Health to non-indigent cases that are not of an epidemiological character, and

Whereas, The State Board of Health has all these years ignored the opinion of the Society in this matter, and

Whereas, The gratuitous services by the State Board of Health Laboratory of diagnostic tests for fees to all persons regardless of their economic status is a clear invasion of the legitimate field of the clinical pathologists, therefore be it

Resolved, That the Committee on Public Health which is especially charged with coordination with the State Board of Health be empowered to confer with the latter with the view of abolishing the unfair competition of a tax-supported Board with the professional activities of clinical pathologists who are specialists in the practice of medicine.

Dr. Allen moved adoption of the resolution; seconded by Dr. Waring and carried.

President Madler: "Many of you, if not all, heard this afternoon my recommendation to the House of Delegates in regard to the appointment of a Committee on Tuberculosis Education to function somewhat similarly to the Committee on Cancer Education. Is there anything you would like to do with that recommendation?"

Dr. Waring moved that the recommendation be put into effect; seconded by Dr. Vanderhoof. Carried.

Under the order of unfinished business, Dr. C. E. Cooper continued his discussion which had been interrupted by adjournment of the morning session of the House of Delegates.

Dr. Corper: "Mr. Chairman, I would like to ask for a little information. Maybe it was given previously by Dr. Cooper, but I would like to ask whether this plan, in some form, has been accepted by any State Societies."

Dr. Cooper: "I don't think it is in operation in any State Society. I don't think there is any amendment that has in view the organization of the profession and the element of coercion that this one has."

Dr. Sewall: "I consider it a privilege to be allowed to sit here and compare the proceedings with those I know as President ten or twelve years ago. They are greatly improved.

"No one seems to be inclined to speak on this question, and I am moved to express an opinion. I think that the inter-relations of economics and medical practice form an unsolved field of knowledge and we ought to step very carefully before placing ourselves on record as Hitlerizing the individuals of our gloriously free profession.

"There is to me something furtive in the reading of this amendment. I wonder if there is anything back of the words. As I see it, this amendment would greatly hamper the functions of the highest medical institution in this State,—the Medical School of the State University. Is that right?"

Dr. Cooper: "We don't think so, Doctor."

Dr. Sewall: "Well, it may as I read it, and if that is true, it is furtive and I want to know the thoughts back of the makers of such an amendment.

"Now, a large proportion of the finest of the young men in our medical profession here receive their knowledge, receive their introduction to practice through our local institutions and if they are engaged in propagating this kind of an amendment which may paralyze the efforts of their medical alma mater, I say it is just like a child sucking the breast of a mother and as soon as he is old enough to have whims and have them forbidden, sticks a knife into her breast.

"We ought to move very carefully and slowly on this sort of thing. It doesn't concern me, and I don't know whether I am right in talking about it because I am out of practice, except I believe that they still claim my state tax of two dollars!

"Please take some facts into consideration. A great medical school, in this period when medicine, through a great medical school, receives everywhere a crown of public endorsement and admiration, is the most valuable asset in intellectual, professional, industrial and humanitarian relations that any city can have.

"Have we a great medical school? Not yet; but I take my hat off to the men who have put up those magnificently adaptable buildings and who have gathered an honest, sincere, able faculty to put us into Class A of the medical race. That is a great achievement, and if you take away that free Dispensary you are going to take them out of Class A and you are going to make a miserable, declining institution, an affront to the intelligence of our profession.

"Rather let us put our shoulders to the wheel in helpfulness; talk openly and criticize as with a part of our medical family. That medical school should represent to us an assemblage of scholars, full time students of every branch of medical science and art, ever ready to share with us the fruits of their studies. Their activities are not limited to the teaching of pupils, but their leisure hours are employed in the solution of problems by original research.

"Emerson talks about the mouse trap built by a man in the midst of a forest. If it were the best of all mouse traps, people would come and get it. It is fifty years since the Mayo boys, in that little town of Rochester, Minnesota, commenced to treat patients on a new plan and now the world honors and knows them and Rochester is no longer a place in the woods.

"Let us consider this proposed amendment in all its bearings. Let us avoid putting in the laws things which cramp or seem to cramp the individual. This thing is not yet digested, and if there is any design that interferes with that medical school, we ought to go out on the street corners and inveigh against it."

Dr. Johnston: "Mr. President, this was published in 'Colorado Medicine' previous to this meeting so that the constituent societies could digest it before this meeting. I came up here with a vote from the Otero County Medical Society in favor of it. We have been supporters of the medical school. We worked for it when it was organized, politically and otherwise. We realize that this should, in a way, be decided by Denver because in Denver you have more social agencies and you have more charity patients; but we in the drouth area (and I live in the drouth area) need something of this kind in order to bring pressure upon the social service agencies who are inclined to go out and bid for work being done.

"We are getting along all right by saying to these people, 'Now here. We will have to take this up with the Medical Society. If we can arrange it, we will meet you.'

"Our trouble comes that in some other portion of the State there is some isolated instance of a doctor who is quoted as doing this for fifty cents or a dollar and they come back to us and say, 'Why can't you do it in Otero County?' It is delayed. It is held up.

"It is nothing more than a united front. It isn't going to take much coercion. It depends on the attitude of Denver. It isn't going to upset any institution. It isn't intended to upset any institution already existing. It isn't going to upset our relations with the Child Welfare Society or the Anti-Tuberculosis Society, or the Mental Hygiene Society or the Crippled Children's Society, but it is going to unite all those social agencies into one agency to deal with the Medical Society

instead of having each one of them grabbing us and getting as much as they can out of us. It is going to accomplish more if we unite in dealing with social agencies.

"It doesn't mean that we need to restrict, but it means that we need to deal as a whole, as a united front. I believe that in Denver, where you have so much of this, you have really the same situation that we have in the smaller communities. If we could appeal to the State Society and find out definitely what was being done over the rest of the State, it would uphold us through an emergency which is presenting itself at the present time, and will carry some of our men who are on the verge of bankruptcy through a period when agencies come to us and say, 'How much will you do for nothing?'

"If one individual does it and the other doesn't, we get nowhere; but if we present a united front we are getting the respect of the social agencies. With it we will be able to say to the FERA, 'Your medical allowance is inadequate,' and if we as a State Society say to the FERA, 'Your medical allowance is inadequate,' then we have a united front and we will get something for it. If we don't, they will spend their money for groceries, for coal, and we won't get anything,—just as we are doing now!

"I don't see that there is anything in this that is obnoxious. I don't see that it will paralyze anything. In our consideration of the question in Otero County, we felt that it was simply a united front and in our operations in the County we have found it a decided advantage to present to social agencies a united front. We have received them courteously. We have really gotten along with them better than when we were dealing in small groups. We have to compromise a little but we accomplish more. Our program is getting along better than it did when we were continually having inroads by a few who were over-enthusiastic.

"Otero County is in favor of this. We feel that we understand it. We are not afraid of it. We considered it carefully at a meeting the other night, because we felt that was what you wanted. We'd like to know what Denver and Colorado Springs and some of these larger communities feel about it.

"If you would rather vote by societies, let's move to amend this so that it is ratified by two-thirds or three-fourths of the constituent societies, or else vote on it. It isn't a hard thing to understand if you have the interpretation that I do,—that it is simply a united front."

Dr. Bortree: "Mr. President, I am surprised that one constituent society of the State has taken the request of the Medical Economics Committee seriously and did what they asked, but I might have expected it of Otero County. That action should have been taken by every constituent society in this State prior to this meeting. You men should have known something about this when you came up here, and known what your fellow practitioners and your county societies felt about it. Then you'd be ready to take action.

"I feel that this group of men at the present time does not know enough of the situation to make a decision. It seems to me that it would be wiser to postpone action at this meeting until such further time as more general knowledge could be had of the problem involved.

"I feel we are wasting time trying to educate all the delegates at this meeting. I'd like to see action deferred until a later time."

Dr. Lamme: "I hate to be reprimanded! We are coming into our own. We don't need to have

a meeting. We can get in personal contact, one with another. This subject was brought up with the different members of our society, the Huerfano Society.

"For some reason the question wasn't or didn't seem to be as clear to us as it apparently has been to the members of Otero County. The managing of a program or of this amendment seemed to be what was bothering a number of members. It didn't seem entirely clear. It didn't seem this amendment came to any definite conclusion. In other words, we didn't know how it was going to work.

"Then, right along that line, naturally from a selfish standpoint, we didn't know how it was going to apply to us in smaller or rural communities.

"As Dr. Bortree brought out, I believe that we are a little hasty if we come out and try to vote upon this subject intelligently until we have been enlightened a little bit more.

"I am on the floor just to answer the reprimand, because we are active, we in Southern Colorado are interested in the actions of Colorado Medicine, and we always are ready to assist in anything that will seem to help its progress."

President Madler: "I believe like Dr. Bortree,—that we probably are not going to get anywhere at this session of the House of Delegates, not this year. While we want the discussion to continue, at the same time I believe the education of the delegates should be at home rather than here."

Dr. Johnston: "I don't wish to discuss this again. I move to amend the original motion to adopt this, so that it reads that this motion may be adopted by a three-fourths majority ratification of the membership of the constituent societies within thirty days."

Motion seconded by Dr. Lamme.

Dr. Bortree: "With that in mind, Article X of the Constitution reads as follows:

"Either the general meeting of the Society or the House of Delegates by a two-thirds vote may order a general referendum and submit any question to the membership of the Society for a vote. If the persons voting shall comprise a majority of all the members, a majority of such votes shall determine and be binding upon the House of Delegates and the Society."

President Madler: "That is in line with Dr. Johnston's motion, which has been seconded. That motion is open for discussion."

Dr. Waring: "I'd like to say a word about the motion. The proponents of this amendment have conducted a very active campaign of education in favor of the amendment and the opponents of the amendment have not done so. Now it seems to me that it is asking a good deal of the opponents of this amendment to carry out a campaign of education of their point of view in thirty days, and I would certainly be opposed to such a restriction of time."

Dr. Maier: "Mr. President, the Committee on Medical Economics has had this amendment in mind and under discussion probably for six to eight months. During that time we tried to bring it to the attention of the State Medical Society. We began last spring. We went in person to combined societies of Pueblo and Colorado Springs. At that time it was discussed pro and con.

"We went before the Board of Trustees and asked for a plebiscite. The Board of Trustees saw fit to deny us that plebiscite and authorized that we publish it in 'Colorado Medicine,' with arguments for and against, which we did.

"I don't think there has been any argument raised before the State Society other than the merits of the amendment and the demerits of the amendment. Both sides have argued.

"Now this is a problem of education, as it is being placed before the House of Delegates. If we handle this education as a matter of County Societies, is that education going to come from interested groups, or is it going to come from the Medical Economics Committee that has proposed this amendment to the House of Delegates? Are we going to have this problem spread out from thirty days to six months, to another year, or are we going to settle this problem now?

"The Committee has been conscientious and has endeavored to bring before the Society the points pro and con of this amendment. I don't see why it should take a great length of time for education. It seems to me that the ground has been very well covered.

"The Committee would like to have some definite action taken on the amendment at this time. The amendment has no provision to damage any particular group or any particular institution. The amendment is conceived only for the purpose of protecting the individual private practitioner in his economic status.

"The changing times have changed the situation of the physician. The problems that we face today as a profession are not the problems that we faced ten years ago, that the older man in the practice of medicine had to face. We can't meet those problems with the same answers. We have to devise new answers for our problems.

President Madler: "I am not certain as to the procedure. Dr. Maier is not talking to the motion which is now before the House. That is Dr. Johnston's motion. Dr. Maier is talking on the former motion. The Chair would rule that Dr. Maier is out of order."

Dr. Stephenson: "Is Dr. Johnston's motion subject to discussion? I should think Dr. Maier's discussion would be in order if he deals with the question of thirty days."

President Madler: "If he limits his discussion to the time limit of that motion he is in order, but if he talks to the former motion, then he is out of order."

Dr. Maier: "Am I in order?"

President Madler: "If you confine yourself to the time limit specified in Dr. Johnston's motion."

Dr. Maier: "The main thing that I was trying to make clear was that the period of time for the education of the individual practitioner should not be made too long. I don't think it is necessary. The Committee has done a voluminous amount of work so far up to date, and the Committee would like to have the matter settled.

"The Medical Economics Committee has carried on the program of education on this amendment to date, and I would like to have a clarifying point on that, also."

Dr. Packard: "Mr. President, I am opposed to Dr. Johnston's motion. Thirty days seems to me a very short time. I, for one, am confused as to just exactly how this amendment will work out. At first glance the amendment seems to me to be too radical. It seems to set restrictions on our individual desire or ability to do what we wish,—a restriction such as we haven't had heretofore. I would feel, personally, that thirty days for the Society to settle this is too short and it would be my own opinion that another year would be time enough to take care of it."

Dr. Benell: "This question has to be settled some time and we are in duty bound, I believe to do it. The Committee has worked hard. They

have worked hard all year, and I don't see but what we are intelligent enough to take this question back to our constituent societies and educate them and ourselves, too, and bring in a verdict at the end of thirty days. I am in favor of Dr. Johnston's motion."

Dr. Holmes: "I am from Fremont County, and we haven't had a meeting since last May. We always omit meetings in June, July and August. We have had 'Colorado Medicine,' we have read this amendment and the work of the Committee but we haven't had a meeting and we haven't had a chance to discuss this thing, to digest it and make up our minds as to what we think of it. However, I think we can do it in that time if we are of equal intelligence with Otero County and some of the others."

Dr. Cooper: "First I want to say that the comparison that Dr. Sewall made between the Committee and the ungrateful baby is very illy taken. Second, just a little bit of thought on the part of anybody here will show perfectly well that it will take a lot more than this amendment or any action of this House of Delegates to put the Colorado General Hospital and the Medical School out of business. They are firmly entrenched."

"I believe that if the amendment is adopted, six months after it is in operation the Hospital and the other institutions that it affects will be in favor of it."

President Madler: "We will now vote on Dr. Johnston's motion as amended. The vote is that this amendment as brought in by the Committee on Medical Economics shall be referred back to the County Societies for vote by the membership. That is the motion before the House now, and that will require a two-thirds vote to pass."

Dr. Bortree: "To refer this for referendum requires a two-thirds vote of the members present and voting at this meeting; to adopt it by the State Society requires that a majority of the membership in the Society shall vote and that a majority of the number of members voting shall approve it."

This vote was taken by standing counted vote, and resulted in nineteen voting affirmatively and six negatively. The President declared the motion carried.*

President Madler: "The next thing that comes before the House of Delegates is a supplemental report of the Public Policy Committee. Dr. Giese will now bring in his report."

Dr. Giese presented the supplement, as follows:

SUPPLEMENT TO THE REPORT OF THE COMMITTEE ON PUBLIC POLICY

To the House of Delegates of the Colorado State Medical Society:

The Committee considered the matter of hospitalization of the indigent tuberculous and passed the following resolutions:

Whereas, The control of tuberculosis is a major health problem in Colorado, and

Whereas, No satisfactory plan has been evolved for the care of the resident indigent tuberculous of the state, and although the number of hospital beds in the state for the treatment of tuberculosis is great the number of hospital beds for the indigent resident consumptive is utterly inadequate in two important particulars:

(1) To provide hospitalization for the curable consumptive;

(2) To provide hospitalization for the advanced consumptive who is a menace to the public health,

Whereas, approximately two thousand tubercu-

lous persons are on the relief rolls in the counties in Colorado, and

Whereas, The public health can be best protected and the consumptive best cared for through a centralized system of management, be it

Resolved, That a State Bureau of Tuberculosis Control be established, operating if possible with the assistance of a State Tuberculosis Sanatorium.

Respectfully submitted,

CHAS. O. GIESE, Chairman,
W. W. KING,
JAMES J. WARING,
GERRIT HEUSINKVELD,
JOHN S. BOUSLOG.

Dr. Giese: "I might say in explanation of this resolution that we endeavored to get some nationally informed individual to talk to this Committee but we were unable to do so until very shortly before this meeting, at which time we had Dr. Kendall Emerson, Managing Director of the National Association. He gave us some information that I think was quite valuable. I can say that in a number of the States that have no State Tuberculosis Sanatorium a plan, of which this is only a very brief outline, has been found rather effective. It has not been found as effective, however, as where there is a State Tuberculosis Sanatorium which operates as the head of this Bureau."

The President referred this Committee Report to the Reference Committee on Reports of Committees.

President Madler: "The report of the Committee on Nursing Education is now before the House, and before we take up that report I wish to read from a letter which was addressed to Dr. Webb:

"Earlier in the year we wrote you about a place on the program for nursing, but we were too late in making our request."

"Some of us will be in Colorado Springs attending the commencement of Glickner Hospital nurses. We can be reached through Sister Cyril if your House of Delegates wishes to hear from us about the nursing situation."

"Sincerely yours,

"A. FAITH ANKENY."

"Is it the pleasure of the House to permit Miss Ankeny to speak to you on the nursing situation?"

Dr. Bortree: "Mr. President, I move that the House of Delegates grant Miss Ankeny ten minutes' time."

The motion was seconded by Dr. Waring. President Madler asked if there was discussion of the motion.

Dr. Barnard: "What is she going to talk about? Is she going to answer some of these questions that we have been propounding, or give a resume of the whole nursing situation, or what?"

Dr. Waring: "Mr. President, I should like to have Miss Ankeny have an opportunity to speak. As I said yesterday, I did not approve of the report that was rendered on Nursing Education in the State of Colorado. Before she speaks I should like to have an opportunity to say something and then she can be called upon to confirm what I have had to say, or you can ask her any question and I am sure she'd be glad to answer them."

President Madler: "I think we should have a discussion of this report, led first by those for and against in our own House of Delegates and then, after that, ask Miss Ankeny to come in. Dr. Waring, you may have the floor."

Dr. Waring: "There was a motion on the floor, Mr. President, and if it is simply approved that she should be given the time, we can proceed with the discussion."

Dr. Bortree's motion was carried.

Dr. Waring: "Mr. President and Members of the House of Delegates: Dr. Jaffa and I both spoke

*Reconsidered; see Page 413.

yesterday in disapproval of the report of this committee. Dr. Jaffa was not able to be present this afternoon, so he left with me a statement which embodies his views, which I should like to read."

Dr. Waring read the following statement prepared by Dr. Jaffa:

(1) The present committee has shown no disposition to cooperate with organized nursing in the state. (2) Organized nursing has declared itself ready to cooperate with the medical profession and to be open to constructive criticism. (3) The report of the committee is based on hearsay evidence. No attempt has been made to verify or disprove the statements brought to the attention of the committee—evidently chiefly by individuals who are not in accord with the principles of conduct of the State Board of Nurse Examiners—i. e., individuals who apparently have a personal "axe to grind."

Analyzing the report of the committee:

"There are seventeen training schools in the state for nurses."

There are fifteen training schools in the state. This figure might have been verified by contacting the state office.

"There are very few schools that are able to give a course (although the course is three years) that will meet the requirements of the Colorado State Board of Nurse Examiners."

The fifteen schools listed are accredited by the State Board. In no instance has their accreditation been threatened. Changes have been made by suggestion and recommendation only. Every possible aid has been given to assist schools in meeting these recommendations. Where it has been impossible for the school to do so, the standing of the student has not been jeopardized. The recommendations so made have all been directed toward raising the standards of nursing in this state.

"Central School is maintained where classes are sent to meet the requirements for registration."

Central School was established to expedite teaching in the schools and for the convenience of physicians called upon to repeat the same lectures in six different schools.

"Training schools are required to stress subjects having little value to student nurses who wish to perfect themselves in the art of bedside nursing."

Colorado schools follow recommendations of the National Curriculum—published by the National League of Nursing Education. This is a safety factor for the Colorado graduate who works to seek reciprocity from other states.

Here again might be emphasized the ratio of 6 to 10 hours of practical training to one of didactic work.

"The present course is three years—examinations for registration are difficult and so technical that candidates hoping to do bedside nursing are unable to meet the requirements."

The statement contained in this section of the report is not founded upon actual investigation, but upon hearsay statements.

By the statement of the committee the questions asked in examination were not investigated.

Figures might be cited to show that the number of failures is not out of line with those in other states—for example—33 per cent in New York, 30 per cent in California, 28 per cent in Wisconsin, as compared with 19.7 per cent in Colorado. These figures are based on a five year study—1928 to 1932.

"Your Committee requested the Colorado State Board of Nurse Examiners to submit the questions that had been asked in recent examinations and the reply stated a ruling of the Board."

The report does not go on to say that a complete set of new type questions are not prepared annually, but that the validity of questions is tested out on students and those found to be fair are built into succeeding examinations while others are dropped.

The report should add that in its letter the Board extended an invitation to the committee to visit the office and read the questions at any time.

No member of the committee availed itself of this offer. The Board also offered to call a meeting to discuss the questions and method of grading.

Dr. Waring (interpolating): "Yesterday, by implication, the nurses were accused of lack of cooperation. As a matter of fact, both the Board of Nurse Examiners and the Colorado State Nursing Association wrote letters to this Committee

inviting them to a joint meeting with their respective organizations, and no answer was returned by the Committee to that invitation."

"That there is a demand for bedside nurses who meet the requirements of the medical profession."

No evidence was advanced to show that nurses registered by the State Board do not meet the requirements of the medical profession or to show that there is a demand for bedside nurses of another type, beyond a single isolated instance in which a practical nurse was said to have been practicing medicine. It was not stated that this instance was presented either to the State Board of Medical Examiners or the State Board of Nurse Examiners for correction.

The requirements of the medical profession mentioned were not explained. If these requirements were made specific and it could be shown that the present curriculum does not meet them, such changes as are necessary might be suggested and put in force.

In regard to the recommendations of the committee:

The continuation of the inquiry should be heartily endorsed. The committee should be instructed, however, that this inquiry should be based upon a fair comparison of present standards with existing needs; that this comparison can only be obtained by working in conjunction with the group affected and by taking advantage of the offer of cooperation of organized nursing which has thus far been ignored.

As to the needs of the profession for bedside nursing—it may certainly be expected that if the need exists for a different type of nursing the group most interested—organized nursing—would be vitally interested and in sympathy with such a study and that should such a need be shown it would be concerned with fulfilling that need through the accredited nursing organization.

If it suggests placing nursing on a level with unrecognized cults, lowering the standards of the profession, and tearing down the organization and standards which have been set up over a period of years this section of the recommendations should be rejected without qualification. This is apparently the suggestion hinted at in the third recommendation—namely, the establishment of a short course for practical nurses.

There can be no doubt that organized nursing is vitally interested in advancing itself and will work with all available agencies to that end.

We should oppose any effort to destroy or break down the standards of an organization which is necessary to the carrying out of a sane medical program.

An impartial effort should be made to obtain facts from authentic sources, so that when this question is again presented action may be taken upon an accurate report.

Dr. Waring (continuing): "That is a statement rendered by Dr. Jaffa, supplemented by remarks of my own, Mr. President. In conclusion I move that the report of this Committee be not approved."

There was no second to this motion and the Chairman declared it lost for want thereof.

Dr. Verploeg: "We have heard a great deal about cooperation with nurses. I want to say (and this is not hearsay) that the lady to whom you are going to listen in a moment was asked for cooperation because one of the instructors gave a course which apparently was too hard for the nurses. The instructor attempted not to allow them to pass, because they couldn't answer the questions submitted. This was submitted to the President of the Board of Nurse Examiners, but she did not have enough of the spirit of cooperation even to answer that request."

"Whether it was a fancy of the instructor in giving a course too difficult, or whether it was because the nurses weren't qualified to take this course, I don't know, but this is not hearsay."

Dr. Stephenson: "Mr. Chairman, perhaps I shouldn't discuss this question because I don't employ nurses any more (I did at one time)—but it seems to me that there is a slant to Dr. Rogers' report that is a little different from what many of the members get from it."

"I think Dr. Rogers said last night that he did not wish to reduce the requirements of the trained nurse. He complimented the training as given them, but there is this angle to it: I think nearly every doctor here, probably every doctor in the State, has at some time or other employed a practical nurse. It is done all over the United States. By doing that, doctors tacitly agree that there is a need for a nurse who can go into a home where the family is unable to pay the price of a trained nurse and at the same time pay some one to go into the kitchen and cook meals, get the children ready for school, etc.

"I believe that this common practice of doctors over the United States is in itself an admission that they need that kind of a nurse, a practical nurse who will make the expense less to the family.

"If we are going to have practical nurses, would it not be better to have some sort of training school for them? I don't know where they come from. I don't know how they arrive. They just spring up.

"Dr. Jaffa said in his discussion last night that complaints registered with a Nurse's Registry in Denver against nurses practicing medicine were made against the practical nurses, and there was little with regard to trained nurses. If that be the case, is it not all the more desirable that this class of nurses whom the doctors recognize and use, and I take it, need, should be trained under the supervision of the registered nurse?

"If that is done, such nurses can be trained with regard to ethics of nursing, and we may then have a class of nurses that doctors need frequently. They would be trained in ethics and would not undertake to practice medicine on the side.

"I think that feature of Dr. Rogers' report deserves consideration. Of course, you will remember it is also in line with the recommendations of our President in his address today."

Dr. Barnard: "It seems to me the nursing situation is the same as the medical situation. If we are going to have nurses, we are going to have good nurses that live up to a certain standard. If we are going to have doctors, we are going to have them live up to certain standards. We can't have a practical nurse with a different curriculum and still call her a nurse. Certainly a doctor can't be a doctor unless he takes a regular course as an M.D. and is a real doctor.

"It seems to me the practical nurse would compare with these men who go out as chiropractors and osteopaths and still retain the title 'Doctor.' If we are going to have a practical nurse, that is one thing. If we are going to have a nurse, we should call her a nurse, and if we are going to have a practical nurse, someone to go into the home and cook, let us call them house maids or something else. I don't think you can ever have two different classifications of nurses."

President Madler: "I think the idea was to call the two different classes 'Registered Nurses' and 'Nursing Attendants.'"

Dr. Porter: "I have practiced out in the sticks and I know about practical nursing. I think there is nothing in the doctor's practice quite so dangerous as the so-called practical nurse. If she gets you in trouble, you have to take the blame. If she happens to be unfavorable to you and to prefer Dr. Jones or Dr. Brown, you are in hot water because she constantly is intimating or even coming out openly and saying to the patient and her family that Dr. Brown or Dr. Jones can do things better than the attending physician.

"We think we are a pretty independent outfit, but I want to tell you that the doctors are pretty

much under the control of the nurses. They tell us how many hours they will work and they set their own price, regardless of our patient's status. They are not like us, who charge according to circumstances in almost every case.

"I am not in favor of this short course for nurses. Either have a nurse or don't have one."

President Madler: "It is now 6:20 o'clock. We have granted Miss Ankeny ten minutes' time to speak to us. I will deputize Dr. Bortree to escort Miss Ankeny to the meeting room.

"Gentlemen, I have the pleasure of introducing to you Miss Ankeny, President of the Nurses' Association of the State of Colorado."

Miss Ankeny: "I wish to assure you that we appreciate the interest the Medical Association has shown in us. We know that we have a lot of problems as nurses. We know that many times we have let you down,—sometimes in individual nurses. We have been so busy doing our job that I think we have been quite inarticulate. We haven't expressed ourselves as much as we might or explained ourselves as much as we might.

"We have been working on a plan for a stated curriculum or a course of study for nurses which, after all, has taken not more than one hour a day out of the three years of training that the nurses had. That has been practically the maximum.

"As a Superintendent of Nurses, which I am, I find the work which has to do with the learning of medical facts the easiest thing. What I find difficult is to train the nurse in the art of caring for the patient. The eight or nine hours she spends on duty caring for the patient are the ones with which we are still the most concerned. I think none of us need to dread that we are becoming too much book-learned by that method as long as we still maintain that ratio.

"We talk about some thousand hours of classroom work. I wonder if you have ever estimated the fact that a nurse, during her three years, gives from twenty-five hundred to five thousand baths to the patients, taking up a much larger proportion of time than the one or two hours she spends in study.

"We do vary somewhat between getting too much factual material and getting the right proportion so that the student has the respect for the medical facts she should have. You can give too little or you can place the emphasis on too much. That will probably always be true until we can separate our course of education from the practice in the hospital.

"As you know, hospitals are not organized primarily to educate nurses,—90 per cent of them. A few are, but 90 per cent of them have to maintain the school with the primary object of getting patients cared for just as cheaply as possible, and your Superintendent of Nurses has that obligation first.

"When I get down to a deadline, for instance, on dismissing a nurse who is doubtful, or keeping her, it depends very much on whether I have to have her hands and feet, not whether I know she is going to make a good nurse or not. As long as that condition exists, we shall have more poor nurses in nursing.

"I can't think of any method by which we can train nurses and produce 100 per cent perfect people. When nursing was much smaller and there were fewer of us, I think we turned out a larger proportion of very good nurses. We have been overwhelmed in producing numbers, but I think there is a great deal of help in our nursing organization. I know we shall welcome your interest in it. Anything that we have in the way

of information is available to any members of the Medical Society at any time.

"We have our State office, we have our Nurses' Association which is the professional organization of nurses, and we shall always welcome your interest and your criticism and your admonition. We are doing the very best that we can in our present circumstances.

"Are there questions? I shall be very happy to answer any."

Dr. Johnston: "Miss Ankeny, the situation at present seems to be that nurses are unemployed, and that the doctor needs someone to go into the home to do a little more than we have been accustomed to asking the registered, well-trained nurse to do. In fact, during the period when times were good, there was a tendency on the part of nurses to build up resistance against that, which I think was justified.

"Now the question comes up, should there be a practical nurse come into the picture again, or can this over-supply of trained nurses meet the situation? Perhaps the Nurses' Association can help us work this out in some way,—giving employment perhaps at a less figure throughout a temporary period of depression.

"Would such a thing be possible?"

Miss Ankeny: "I think it is quite possible. Our instructions to nurses (and of course what we'd like to see them do, is to judge the case on its individual merit), is to have the patient feel that the nurse could do whatever needs to be done at a price the patient could afford, and that the nurse could afford to receive, or to divide it up by sharing it between nurses. Where people are absolutely unable to pay the usual fee, we have in a number of instances talked it over with a selected nurse or two and been able to make this arrangement."

Dr. Johnston: "I think that works out in the city. Would it be possible to work that out in smaller communities through a central agency in connection with your office?"

Miss Ankeny: "I think so. We find it isn't the best trained nurses who dread going out into the country on cases; it is generally the one whose own background has been limited before she came into training. We can't always judge what it is going to be, but I think the Nurses' Association would be most happy to undertake that problem. It is a problem, because there are a great many things involved besides just care of the patient."

Dr. Barnard: "Is the tendency to increase the theoretical training, or didactic training at the present time or is the tendency to decrease the theoretical or didactic training and give them more practical training? In Denver, it seems to some of us that they are getting more theoretical training than they used to get, and they are not getting as much practical training."

Miss Ankeny: "About eleven years ago we put out nationally what we considered a curriculum—not standard, but a recommended curriculum for Schools of Nursing. Most schools have gradually worked up to that, so what you have noticed is perhaps that gradual increase.

"But, as I say, it still remains at that ratio of one hour of lecture or class to eight or ten of practice. It is in the supervision of the practice that we are faulty, because the hospital cannot afford to give sufficient good graduate supervision; economically it is at present impossible for most of them to do it."

President Madler: "Miss Ankeny, I am still old-fashioned enough to consider a nurse as my assistant. I understand that a nurse who had charge of the course at the Colorado General

Hospital made the statement that nurses do not wish to be considered as assistants; that they are 'doctors' associates.' I feel that when I want an 'associate' I want a doctor; and if I want an 'assistant' in taking care of the case, I'd like to have a nurse. What is your understanding of that?"

Miss Ankeny: "I have always felt very honored, and I have felt honored to teach my nurses, that we rank as assistants. I think you have heard the view of perhaps one individual; certainly not the teaching or belief of our Nurses' Association or the professional nurse. We feel that the honor is great in being an assistant."

Dr. Yegge: "Miss Ankeny, I notice criticism among a good many men that the nurses undoubtedly have too much theoretical training, too much training along diagnosis, pathology, etc., and not enough training on making solutions, and work they should actually do.

"Enlarging on what Dr. Barnard says, is it a tendency to give a more theoretical training along those lines rather than to the lines of pathology and diagnosis, which is not going to assist with taking care of the patient?"

Miss Ankeny: "I don't doubt that sometimes we err in individual lectures on that, Dr. Yegge, but what we try to do is to bring that close cooperation and understanding to the nurse so she will be a more intelligent assistant. I don't doubt that we sometimes fail,—individuals do,—but I think the longest course in pathology is a series of fifteen lectures. Most of us give ten."

Dr. Barnard: "Mr. President, I move we extend an expression of thanks to Miss Ankeny for coming and talking to us."

The motion was seconded by Dr. Waring and carried, by a rising vote.

Dr. Johnston: "I move that the report of the Committee on Nursing Education be accepted, and that the new Committee be instructed to confer with the Board of Nurse Examiners, putting forth an effort to arrange for nurses at an economic figure which is possible today.

"That is rather vague, but that is the idea and I think you catch it. Here are thousands of unemployed nurses. The Nurses' Association should have an opportunity to meet the problem. If they will meet it with a trained nurse at a less figure, it is better than putting in a practical nurse."

Dr. Barnard seconded the motion, and it was carried.

President Madler: "Gentlemen, the report of the Advisory Committee to the School of Medicine is still before us and has not been acted on."

Dr. McClanahan: "I am just as eager to adjourn as any of you but I sat up until half past two o'clock last night and I can do it again tonight. I hope you will not adjourn until you dispose of the report of the Advisory Committee to the School of Medicine."

Dr. Johnston: "To get this before the House, I move we accept the report of the Advisory Committee to the School of Medicine."

The motion was seconded and carried.

President Madler: "Is there any New Business to be introduced by any officer, Chairman or Delegate?"

Dr. Yegge: "I have some business that the Ladies' Auxiliary asked me to present. It concerns the establishment of a fund to take care of our indigent doctors.

"As we all know, there are some pitiful cases in the State. Doctors who have practiced for a good many years are on charity. The Woman's Auxiliary has already collected \$270 towards this

fund. At a meeting this afternoon, the Executive Board of the Auxiliary voted to turn this over to the State Society to be controlled by our Treasurer, if we are willing to contribute something ourselves.

"I move that the President appoint a committee to act with the Woman's Auxiliary toward working out a plan for establishing a Medical Benevolence Fund of the Colorado State Medical Society, which would be controlled by our Society and supported by an appropriation from the annual dues, the details to be worked out by this Committee and reported back at the next annual session."

The motion was seconded by Dr. Corper and carried.

On motion by Dr. Johnston, seconded by Dr. Barnard and carried, the meeting adjourned.

FOURTH MEETING OF THE HOUSE OF DELEGATES

12 noon, September 22, 1934

The meeting was called to order by President Madler.

The Executive Secretary called the roll. Thirty-nine delegates, a quorum, were present. Upon motion of Dr. Bouslog, seconded by Dr. Vanderhoof and carried, Dr. B. F. Blotz was accorded a seat in the House of Delegates, replacing Dr. Johnston, Otero County.

The Executive Secretary read the minutes of the previous meeting and suggested the following correction:

Mr. Sethman: "While the By-Law proposed by the Committee on Medical Economics has been disposed of, the report of the Committee on Medical Economics has not been, and some disposition of it should be made."

Dr. Bortree: "Mr. President, we were all pretty badly tangled up yesterday, and I'd like to clarify things, which I think can be done by about two or three motions. As a voter in the affirmative on this Medical Economics and amendment matter, I move that we reconsider all action taken in regard to the amendment to the By-Laws which was proposed by the Committee on Medical Economics."*

The motion was seconded by Dr. Porter.

Dr. Bortree: "If we do this, we can make this thing legal, preserve the intent of the House of Delegates at that time, and clarify our records."

The motion was carried unanimously.

Dr. Bortree: "Now, Mr. President, I move that the By-Law proposed by the Committee on Medical Economics be referred to the membership of the Society within thirty days from this date, under the provisions of the Constitution, the votes to be counted sixty days after the ballots have been mailed out."

The motion was seconded by Dr. Vanderhoof, and carried unanimously.

Dr. Bortree: "I move that the report of the Committee on Medical Economics, aside from the By-Law proposed, be adopted."

The motion was seconded by Dr. Yegge and carried.

President Madler: "We will now entertain a motion that the minutes as recorded and as amended, be approved."

Dr. McClanahan made the motion; seconded and carried.

The President stated that the next order of business was election of officers and asked the

Secretary to read the report of the Nominating Committee. Mr. Sethman re-read this report. (See Page 404.)

President Madler asked for further nominations from the floor. There were none. Dr. Corper moved that the nominations be closed; seconded by Dr. O. E. Benell and carried. Dr. Low moved that the Executive Secretary cast the unanimous ballot of the House of Delegates for the nominations as read, separately for each officer. The motion was seconded and carried. Mr. Sethman then cast the ballots.

The President asked if there were further reports to be made by any officer. The Executive Secretary reported to the House the previous day's proceedings of the Annual Conference of Secretaries of Constituent State Medical Associations of the American Medical Association, held in Chicago, which he had attended.

President Madler: "The Reference Committee on Reports of Committees has a supplemental report to submit."

Dr. McClanahan: "Mr. President, I was uncertain as to whether the Reference Committee on Reports of Committees had any further work to do, and in that state of doubt I consulted the President and he assured me that we didn't have any more work to do, and we haven't done it."

Mr. Sethman: "According to the minutes of the last previous meeting, the supplemental report of the Committee on Public Policy was referred to the Reference Committee on Reports of Committees."

Dr. Low asked that the report be read again and that the House pass on it as a whole. The Executive Secretary re-read the report. (See Page 409.)

Dr. Benell moved that the report be accepted as read. Motion seconded by Dr. Minnig and carried.

President Madler: "I am sure that it would give us a great deal of pleasure to hear from the President of the American Medical Association, who is our honored guest today."

Dr. Black: "Before our worthy President speaks, I would like to take occasion to ask that Dr. Walter L. Bierring be made an Honorary Member of this Society."

The motion was made, seconded, and carried by a rising vote, with applause.

Dr. Bierring: "Mr. President, Members of the House of Delegates: This courtesy that you have just extended is unique. It is the first time it has ever happened, and I appreciate it very much. I have always had a very kind feeling towards Colorado because of relations with physicians who have been here and I have always thought that here, out on the Mountain Range, you have advanced scientific medicine a little further than any of the Western States."

"I am particularly impressed with this meeting, —with the scientific atmosphere indicated by your exhibits. It has been noted everywhere that one can judge the type of work done in a locality largely by the scientific exhibits, by the character of the program that is presented. There is no question that the leadership of the American Medical Association is dependent entirely upon its constituent State and County Societies, and it is gratifying to learn of the way in which you are approaching some of these newer problems."

"It is significant, I think, that the statements made ex cathedra by your Secretary show the result of unity and solidarity of action throughout all the Societies and throughout the profession of this country. Everywhere you see the same purpose, the same thought. While a new era or a

*See Page 409.

changing order is upon us and while society has always governed the type of practice and the type of medical training, yet at all times the medical profession has been able to adapt itself to the changing demands of society. Everywhere the organizations (State, District and County) are a unit in that whatever plan is devised for the care of the indigent or the so-called low income classes, it shall be under the control of organized medicine.

"Just a few weeks ago I made an extended trip through California (and you know what troubles they have), where there are more cultists than registered physicians,—and they have in prospect an initiative and referendum with reference to naturopaths as a result of a petition signed by one hundred and twenty-two thousand signers,—and yet they are just as firm in their intention to keep whatever method is devised under the control of the State Society.

"We have wondered, you know, in the past, why the parent Association didn't take an initiative, didn't develop a plan. I think you see the wisdom of it now. At Cleveland they endeavored to point the way by adopting certain basic principles. The essential element in all of them was to preserve the relationship between the doctor and his patient. All controversial discussions have been avoided. Every effort has been made to bring us out into the open—that is, to take on a militant attitude,—and yet we have avoided that, I think very wisely . . .

"I think the signs are encouraging. One sees everywhere this confident attitude. Out on the plains of Nebraska and in the Dakotas where they haven't had any rain for years, I guess, they still smile and are confident that they are going to win out all right.

"Whatever plan is evolved, it is going to be under medical control. There is a good deal of fear of the Administration, I know. Yet we were encouraged when some of us met the President at the citation ceremony at Rochester in August. . . . I think he has the interest of the profession at heart.

"It seems to me that the encouraging things your Secretary brought back from Chicago show that there are mighty forces now moving in our favor.

"I also think of another report, concerning a well-defined plan to go out from our central office to the State and County leaders all over the country,—a sort of educational plan to come out from the bureau of Medical Economics. The difficulty with most of us is that though we try to discuss these questions, we are not economists, we have not been trained along these lines. There is to be a general campaign started so that we will be moving along on strictly sound economic philosophy, in unity.

"Again I say it is a great pleasure and privilege to be here. Personally, I wish to again express my appreciation for the great courtesy and compliment you have shown."

The President then called on Executive Secretary Sethman for a further report.

Mr. Sethman: "As a further report from the Secretaries' Conference, I will read a statement written while returning from the Conference.

"In the papers on the FERA, a few points were discussed that, in the opinion of many State Secretaries, may need national attention by the individual States if certain indicated pitfalls are to be avoided.

"The first point is the desirability of incorporat-

ing the verbal agreements now existing between the State Relief Director and our Committee on Medical Economics into one definite, basic, written agreement, if such can be done,—in other words, if one can be drawn up that is mutually acceptable to the Society and to her.

"The agreement then should be subject to further amendment or special interpretation or exception only by written supplemental agreement of the Medical Society and the Relief Director, a simple means for the latter being by an exchange of letters.

"The agreement should carry the protective principles virtually as they were set out in the Medical Economics Committee's bulletin to county officers which was sent out December 5, 1933.

"Here are the reasons: In a few States there have been some dangerous so-called experiments by County Relief Directors, tending to lead to some other method of providing medical care than that outlined in Regulations No. 7. Some of these experimental plans endanger or thoroughly destroy the free choice of physician.

"However, if a general State-wide agreement is in force and is sufficiently reasonable in its provisions so that it is always workable even under constantly varying relief budgets, no such experiments could be tried; for experimenting with plans that are disapproved by the Medical Society would then constitute a breach of the agreement and a breach of the agreement would constitute a violation of Regulations No. 7 on the part of the offending Relief official.

"Several instances of the above have occurred in one state and have, because of the existence of a basic agreement, resulted in the removal of the offending County Relief official.

"The Medical Society, also, should (in the opinion of those who presented the matter) avoid giving cause for a desire on the part of Relief Administrators to experiment with such contract practice schemes or with other plans that are not strictly in accord with Regulations No. 7.

"In a few instances over the country, County Societies have, by asking for or demanding fee schedules that were definitely out of line and were definitely not minimum fees, so wrecked the relief budgets of those Counties that the Administrators were at their wits' end and were almost forced to go outside the Medical Society's plan to get a medical service within existing financial limitations.

"An important point which was brought out yesterday in Dr. W. C. Woodward's part of this presentation was this: Medical Relief under FERA or under any other agency should be kept wholly free from any possible connection with city, county or State Health Departments. If this freedom is not maintained, there can easily develop a local or State political power for the development of a most pernicious form of real State Medicine.

"I therefore respectfully suggest that the House, by motion, authorize the signing of such a suggested basic agreement.

"The By-Laws name the Executive Secretary as the one to sign all official documents for the Society, but I suggest that this agreement be limited in the motion to one which is approved jointly by the Committee on Medical Economics and the Board of Trustees before it is signed, and that it be limited at present to a two-year maximum. The motion could so state. No board, officer or committee may bind the Society beyond the next annual meeting of the House of Delegates

except the House itself. That is why I suggest this action."

The motion suggested above was made by Dr. Bortree, seconded by Dr. Heusinkveld and carried.

Dr. Bouslog announced that the cause of Dr. Lee Bast's absence from the meeting is the serious illness of his wife.

There being no further business to come before the meeting, President Madler asked for a motion to adjourn sine die. Dr. Bortree made the motion; seconded by Dr. Vanderhoof and carried.

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Have You Voted On the By-Law Amendment?

BALLOTS, together with the necessary explanatory material, were mailed October 20, 1934, to every member of the Colorado State Medical Society, under an order of the House of Delegates. The results of the balloting will determine adoption or rejection of an amendment to the By-Laws of the Society which was submitted to the House of Delegates at the Colorado Springs meeting by the Committee on Medical Economics.

Material mailed with the ballots, together with references made to certain previous articles in Colorado Medicine, explain fully the nature of the amendment and the method of balloting. If you have not yet voted, it is not too late. Ample time has been allowed for every member to study the question before he casts his ballot. But ballots, to be counted, must be returned to the Executive Office of the Society by December 19, 1934, the date set for the count. Each ballot is accompanied with a "business reply" envelope, which requires no postage.

Every member of the Society should be sure to vote on this amendment.



General Committee Chairmen's Conference

NEW departures seem to be the rule of the day in many fields, including medical organization. An innovation in organization management in our State Medical Society was inaugurated last month by President Madler, which gives promise of becoming an annual event full of valuable potentialities.

A general conference of all committee chairmen together with the Board of Trustees of the Society was called by Dr. Madler for October 5. Gathered for dinner in a private dining room of the New Edelweiss Cafe, Denver, were Drs. N. A. Madler, W. W. King, J. S. Bouslog, F. A. Humphrey, C. E. Cooper, J. G. Ryan, J. M. Foster, Jr., C. F. Hegner, J. R. Evans, J. W. Amesse, L. W. Mason, C. H. Boissevain, W. H. Crisp, H. A. Black, F. B. Stephenson, and Mr. H. T. Sethman.

After dinner, Dr. Madler explained the purpose of the conference, pointing out that it was primarily designed to bring about a coordination of all committee work, so that committees with overlapping fields of endeavor might avoid unnecessary work and at the same time avoid neglecting any important point in their work. The conference also gave an opportunity for any committee to register its requests for special powers with the Board of Trustees, and to inform not only the Trustees but the chairmen of all other committees concerning its planned endeavors for the year. Likewise it gave an opportunity for officers and Trustees to explain to each committee the facilities

and funds available for committee work, and the conference was hoped to stimulate an early start of committee work that might otherwise be delayed.

Every committee was represented with but two exceptions, either by its chairman or by a member if the chairman could not attend. Every member of the conference took the floor at least once, explaining what his committee planned to do during the year. Suggestions were freely made between committees and officers, all with the view of making the committee work of the Society more efficient than it has been in past years. Everyone present felt that the conference had been invaluable, primarily for giving each committee an insight into the work of all other committees.

Following the general conference, the Board of Trustees went into executive session for its first meeting of the Society's new year. The principal actions of the Board were concerned with setting up the necessary machinery and technique for conducting a referendum to the membership of the Society on the amendment to the By-Laws proposed at the Annual Session by the Committee on Medical Economics.



MEDICAL SOCIETIES



ARAPAHOE COUNTY

A special meeting of Arapahoe County Medical Society was held at the Englewood High School Monday, October 1, to discuss problems arising in the medical work of the FERA. Dr. F. Julain Maier, member of the State Society's Economics Committee, Dr. J. S. Bouslog, state Constitutional Secretary, and Mr. H. T. Sethman, Executive Secretary, met with the Society. Representatives of the state and county relief offices were also present. General dissatisfaction of the Arapahoe County members with the local relief management was evident, and individual and group complaints were laid before the relief officials for adjustment.

* * *

BOULDER COUNTY

The Boulder County Medical Society met October 11 at Wayne's Cafe, Boulder, and following the dinner the program was divided into three units. Drs. V. J. Jernigan, M. W. Cooke and F. C. Klopfenstein and Mr. C. H. Sievers discussed "Medical Care of Families on Federal Aid." Drs. O. M. Gilbert and W. J. White presented clinical cases, and finally Drs. O. M. Gilbert and M. W. Cooke gave reports on the program and activities of the State Society's Annual Session in Colorado Springs.

M. L. JOHNSON,
Secretary.

* * *

DENVER COUNTY

The first October meeting of the Medical Society of the City and County of Denver was held October 2, in the Auditorium of the Capitol Life Building. Resolutions of condolence were read and adopted on the deaths of Drs. Gurney C. Wallace and G. Walter Holden.

A committee comprising the following men was appointed to study the revision of the By-Laws: Mrs. W. H. Halley, Chairman; T. E. Beyer, W. W. Wasson, S. B. Childs, A. E. Bonesteel, and L. W. Frank.

Dr. Hopkins demonstrated an adhesive tape method of holding the skin together in place of sutures and Dr. O. S. Philpott demonstrated a patient having Xanthoma Tuberosum Multiplex.

The scientific program was presented by the Denver Society of Internal Medicine. Dr. J. G. Ryan, president, presided. The Congestive Heart was the subject presented by Dr. C. T. Burnett and discussed by Dr. Maurice Katzman and Dr. John G. Ryan. Dr. W. S. Dennis presented "Xanthomatosis," which was discussed by Drs. O. S. Philpott and Wise.

The second regular meeting was held October 16 at St. Joseph's Hospital. Drs. Harry E. Oakley, James Rae Arneill, Jr., George F. Netherton, Olin J. Butterfield, and Arthur A. Wearner were elected to membership.

Dr. C. C. Cooper, on behalf of the Committee on Medical Economics of the State Society, read a bulletin urging members to write to their Senators, Congressmen, or President Roosevelt concerning the formation of a Committee appointed by Secretary of Labor Frances Perkins, upon which the organized medical profession has no recognition.

The staff of St. Joseph's Hospital presented the scientific program through Drs. W. B. Yegge on "Early Diagnosis and Prevention of Lead Poisoning," John M. Foster, Jr., on "Tumors of the Chest Wall," E. I. Dobos on "Fundamental Principles Underlying Treatment of Diabetes," and J. F. Prinzing on "The Anatomy Concerned in Inguinal Hernia."

O. S. PHILPOTT,
Secretary.

* * *

FREMONT COUNTY

An address on "Neuroses in General Practice," illustrated with moving pictures, was given the Fremont County Medical Society September 24 by Dr. Franklin G. Ebaugh of the Colorado Psychopathic Hospital, Denver. The members thoroughly enjoyed the presentation.

A. BEE,
Secretary.

* * *

LARIMER COUNTY

Dr. Robert K. Dixon of Denver was the principal guest at the October meeting of the Larimer County Medical Society, held at dinner at the Northern Hotel, Fort Collins, Wednesday, October 3. Dr. Dixon gave an intensely interesting review of "Jaundice," emphasizing differential diagnosis of conditions producing jaundice. Dr. Claude E. Cooper of the Medical Economics Committee and Mr. Harvey Sethman, Executive Secretary, both representing the State Medical Society, also were guests at the meeting and discussed FERA medical problems. The Larimer County Society is in the process of completing arrangements for bringing FERA medical work into the county.

L. D. DICKEY,
Secretary.

NORTHEAST COLORADO

The Northeast Colorado Medical Society heard a symposium on "Tuberculosis of the Spine" at its regular meeting, held October 11 at Sterling. Drs. Robert G. Packard and W. Walter Wasson of Denver gave the symposium, which was illustrated with x-ray films and lantern slides. The subject was well presented and many interesting points of diagnosis and therapy were brought out. The doctors had dinner at the Hotel Graham at 6:00 p. m. preceding the meeting. Thirteen physicians attended the meeting besides the guest speakers. We have a membership of nineteen.

E. P. HUMMEL,
Secretary.

* * *

OTERO AND CROWLEY COUNTIES

The Otero County and Crowley County Medical Societies enjoyed a neurological feast and entertained officers of the State Society in a joint session held October 11. The guests were Dr. Edward Delehanty of Denver, who conducted neurological clinics, afternoon and evening, Dr. N. A. Madler of Greeley, state president, Dr. L. W. Bortree of Colorado Springs, state treasurer, and Mr. Harvey T. Sethman of Denver, state executive secretary.

The guests were entertained at a noon-day chicken dinner at the home of Dr. J. A. Hipp, Secretary of the Crowley County Medical Society, in Olney Springs. After dinner members of the Crowley County Society gathered in Olney Springs to see and hear a dry clinic on a score of neurological cases assembled for Dr. Delehanty.

After this, a dinner meeting of both the Otero and Crowley Societies was held at La Capitan Hotel in Rocky Ford. Seven of the most interesting cases developed at the afternoon clinic were transported to Rocky Ford for the evening session, and were again demonstrated for the two societies. Dr. B. Franklin Blotz, vice president of the Otero County Society, presided at the evening session and after the neurological clinic introduced the State Society officers, who spoke on organization matters, emphasizing problems created by the FERA medical program. Many complaints against methods of operation of the FERA in the two-county district were brought out by members, all of which were believed amenable to adjustment through the state relief office.

* * *

PUEBLO COUNTY

Reports of clinical cases, and reports from our Delegates to the State Society concerning actions taken at the recent annual session made up the program of the October 2 meeting of the Pueblo County Medical Society. The meeting was preceded by a dinner at the Congress Hotel.

At the second meeting of the month, held at dinner at the Vail Hotel October 16, Dr. Guy Hopkins presented the scientific program under the title of "Atresia of the Lachrymal Duct in the Newborn." Preceding the scientific session Mr. Harvey T. Sethman, Executive Secretary of the State Medical Society, spoke on behalf of the Committee on Medical Economics and bespoke cooperation in bringing pressure to bear upon national government officers for recognition of the organized medical profession in studies being made of social insurance. The Society voted unanimously to give all requested assistance to the state committee.

J. L. ROSENBLUM,
Secretary.

Obituary

David I. Christopher

Dr. D. I. Christopher died at St. Francis Hospital, Colorado Springs, September 30, 1934, at the age of 88 years.

A native of Richmond, Ky., he attended St. Louis Medical college, and, in 1874, graduated from Bellevue Hospital and Medical School in New York City. He was one of the founders of St. Joseph's college in Kansas City and later one of the organizers of Ensworth's college, where he was for several years professor of physiology.

In 1888 he came to Colorado and at once joined the El Paso County Medical society of which he was an active member until his retirement in 1918, at which time he was elected an honorary member. He was a consulting surgeon for the Rock Island railroad, a member of the National Association of Railway Surgeons, and for twenty-five years was a member of the medical staff of the Union Printers Home. He served as exalted ruler of the Elks lodge and was prominent in church activities.

Although retired for fifteen years, he still maintained an interest in the State Medical Society activities, and his passing marks the last of the early group who did much to elevate the practice of medicine in his home city.

William Zimmerman

Dr. Zimmerman passed away on October 5, following apoplexy and pneumonia. He was born in Stuttgart, Germany, in 1876, and came to this country in 1900. Following attendance at a Lutheran Seminary in St. Paul and Temple University in Philadelphia, he was a Lutheran minister for ten years. The Zimmermans came to Colorado twenty-nine years ago, the Doctor attending Denver University and the local medical school, being graduated in 1910 with the M.D. degree. He has since been well known in Denver medical circles.

The survivors are his widow, daughter, and a son, Dr. William T. Zimmerman now in California. To them the Colorado State Medical Society extends its sympathies.

WOMAN'S AUXILIARY

NEW AUXILIARY OFFICERS

The following officers and committee chairmen will serve the Woman's Auxiliary to the Colorado State Medical Society for the 1934-1935 year, under elections and appointments made last month at the Colorado Springs meeting:

President.....	Mrs. J. W. Amesse, Denver
President-elect.....	Mrs. C. A. Ringle, Greeley
First Vice President.....	Mrs. T. Leon Howard, Denver
Second Vice President.....	Mrs. Wm. Senger, Pueblo
Third Vice President.....	.....
.....	Mrs. W. L. Wilkinson, La Salle
Fourth Vice President.....	.....
.....	Mrs. H. A. Lingenfelter, Durango
Treasurer.....	Mrs. Leonard Crosby, Denver
Recording Secretary.....	Mrs. O. E. Benell, Greeley
Corresponding Secretary.....	.....
.....	Mrs. J. E. Hutchison, Denver
Asst. Corresponding Secretary.....	.....
.....	Mrs. Rudolph Arndt, Denver

Auditor.....	Mrs. Daniel Higbee, Denver
Parliamentarian.....	Mrs. A. G. Taylor, Grand Junction

Standing Committees

Organization.....	Mrs. E. W. Knowles, Greeley
State Editor & Publicity.....	Mrs. D. A. Doty, Denver
Education.....	Mrs. John McCaw, Denver
Hygeia.....	Mrs. Ralph Danielson, Denver
Year Book.....	Mrs. Douglas W. Macomber, Denver
.....	Mrs. George Miel, Denver

Social.....	.....
Chairman.....	Mrs. T. Clarkson Taylor
Vice Chairman.....	Mrs. J. N. Hall, Denver
.....	Mrs. W. F. Brownell, Ft. Collins
.....	Mrs. T. M. Heller, Pueblo
.....	Mrs. A. C. McClanahan, Delta
Philanthropic and Benevolent Fund.....	.....
.....	Mrs. Geo. P. Lingenfelter, Denver
Legislative.....	Mrs. W. W. King, Denver, Chairman
Historian.....	Mrs. C. H. Morian, Denver

At the Annual Meeting of the Woman's Auxiliary to the Colorado State Medical Society which was held September 20 to 22 with headquarters at the Antlers Hotel in Colorado Springs, a record attendance was noted, one hundred and twenty-five registering the first morning with numerous others attending additional meetings and events throughout the convention.

The first assembly on Thursday afternoon was that of the State Executive Board. Recommendations were made to be discussed and voted upon at the General Assembly. The card party in the evening was very well attended. New acquaintances were made and the old renewed. Several lovely prizes were awarded to those whose scores tallied with our amiable teacher, Mr. Culbertson.

At ten o'clock on Friday morning the Annual Assembly of the Auxiliary was opened by the President, Mrs. G. P. Lingenfelter. Reports of all committees were heard. Mrs. T. M. Burns reported on the Benevolent Fund. Discussion followed. The "mite" donations increased the Benevolent Fund over thirty-seven dollars. The distribution of Hygeia was stressed. A very impressive and beautiful memorial service was given to the past year's deceased members. The incoming president, Mrs. John W. Amesse, was introduced by the president. Mrs. Amesse gave a short greeting and announced the committees for the year.

Luncheon at one o'clock was well attended and a very enjoyable program was given. The first meeting of the new officers was held later in the day.

Every minute of the convention, if not taken up by meetings, sessions, and parties, was occupied by each lady in seeing the many educational and medical exhibits, learning of other auxiliaries and their work through new acquaintances and hearing various lectures. We are very proud of the Hygeia Exhibit by Mrs. R. W. Danielson.

Then as a climax to this very successful 1934 State Meeting every member and many visitors attended the President's Banquet. A vote of thanks to El Paso County for a very enjoyable week-end vacation!

The October meeting of the Woman's Auxiliary to the Denver County Medical Society was held at the Nurses' Home of the Denver General Hospital on October 15. There was a business meeting and a very enjoyable program. Dr. Walter W. King, President of the Denver County Medical Society, gave a short message of greeting and appreciation. There were two piano selections by Mrs. D. Macdougall King. "The Most Talked-of Books of 1934" was the subject of a talk by Miss Miriam Mitchell of the Lamont School of Music.

Tea was served, following the meeting. Hostesses were Mrs. Haynes-Freeland, Mrs. R. W. Arndt, Mrs. H. I. Barnard, Mrs. W. E. Blanchard, Mrs. George K. Cotton, Mrs. C. A. Bundsen, Mrs. Leonard Crosby, Mrs. Edward Delehanty, Mrs. R. K. Dixon, Mrs. D. A. Doty, Mrs. L. S. Faust, Mrs. H. S. Finney, and Mrs. J. E. A. Connell.

Plans are in progress for the annual card party and fashion show to be given November 19, at the Denver Dry Goods Tea Room by the Auxiliary to the Denver County Medical Society. Mrs. Cleveland Woodcock is chairman of the committee, and she will be assisted by Mrs. Arnold Minnig, Mrs. Gerald Frumess, Mrs. L. C. Wollenweber, Mrs. D. A. Doty, Mrs. J. Leonard Swigert, Mrs. W. E. Sunderland, Mrs. George Moleen, Mrs. Ward Burdick, Mrs. George Cotton, Mrs. Harry Corper, Mrs. A. J. Chisholm, Mrs. Edward Delehanty, Mrs. J. E. A. Connell, Mrs. J. Burris Perrin, and Mrs. Herman Stein.

MRS. J. V. AMBLER.

THE BULLETIN OF THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER

The Colorado State Medical Society takes a very keen interest in anything which would tend to increase the knowledge of cancer among the physicians of the State. The above mentioned Bulletin is a very useful instrument for this purpose. It contains a number of short practical articles written by distinguished authorities in the field of cancer therapy and cancer research. It offers, at a subscription price of only \$1.00 per year, an easy and practical way for the physician to keep abreast of cancer control progress. A complimentary copy of the Bulletin will gladly be sent to any physician requesting it from the American Society for the Control of Cancer, 1250 Sixth Avenue, New York City.

Free Work of Physicians Valued at Million Dollars a Day

The Clearfield County Medical Society Bulletin recently quotes the following article from the Chicago Tribune on the free work of physicians:

As his contribution to charity, the average American doctor works one day out of every four for nothing, according to a recent nationwide survey.

Furthermore, under the present economic conditions, he is unable to collect for another quarter of his working hours.

"How much charity work do you do?" A postcard questionnaire was answered by 5,823 doctors in every section of the United States.

Careful tabulation of the figures given on the return postcards revealed that the average doctor works fifty weeks a year, sixty-two hours per week. He devotes a little over 15 hours per week, or 24.58 per cent of his total working, to medical services for which he expects no compensation.

Add to this the additional quarter of his time for which he charges but cannot collect, and it is apparent that the doctor is in a class by himself—he works half his time for nothing.

In non-depression years the American medical profession collects a total of about \$750,000,000 annually. This means, therefore, that at present the doctors of this country are contributing to the general public professional services worth approximately \$375,000,000 a year or more than \$1,000,000 a day, half of it voluntary and half of it involuntary charity.

COLORADO STATE MEDICAL SOCIETY

Officers, 1934-1935

President: N. A. Madler, Greeley.

President-elect: Walter W. King, Denver.

Vice Presidents: First, Royal H. Finney, Pueblo; Second, C. E. Lockwood, Montrose; Third, Fred A. Humphrey, Fort Collins; Fourth, G. E. Calonge, La Junta.

Constitutional Secretary: John S. Bouslog, Denver (1935).

Treasurer: Leo W. Bortree, Colorado Springs (1935).

(The above officers constitute the Board of Trustees of the Society.)

Assistant Treasurer: John B. Hartwell, Colorado Springs.

Executive Secretary: Mr. Harvey T. Sethman, 537 Republic Building, Denver; telephone KEystone 0870.

Delegates to American Medical Association: Senior, Crum Epler, Pueblo; Alternate, John B. Crouch, Colorado Springs; Junior, John W. Amesse, Denver; Alternate, A. J. Markley, Denver.

Councillors:	Term Expires
District No. 1 F. W. Lockwood, Fort Morgan	1936
District No. 2 Ella A. Mead, Greeley	1936
District No. 3 George P. Lingenfelter, Denver	1936
District No. 4 C. T. Knuckey, Lamar, Chairman	1935
District No. 5 George D. Andrews, Walsenburg	1935
District No. 6 C. Rex Fuller, Salida	1935
District No. 7 A. L. Burnett, Durango	1937
District No. 8 Lee Bast, Delta	1937
District No. 9 W. W. Crook, Glenwood Springs	1937

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Boulder County—Second Thursday of each month; secretary, Margaret L. Johnson, Boulder.

Chaffee County—First Tuesday of each month; secretary, C. Rex Fuller, Salida.

Clear Creek Valley—Second Tuesday of each quarter; secretary, O. R. Sunderland, Edgewater.

Crowley County—Second Wednesday of each month; secretary, J. A. Hipp, Olney Springs.

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El Paso County—Second Wednesday of each month; secretary, Carl S. Gydesen, Colorado Springs.

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EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

In the Twilight

WHEN the day is over and the twilight time arrives, the souls of men turn to review the busy hours of the past. Life is not all work or all play for any of us. Looking backward brings to us many happy moments in our lives. Every doctor has these—even the hardest workers. Work is the life blood of the doctor. He is happiest when he is working the hardest, and is most lonely when all about him are well. Fighting when life is at stake! Not one in a hundred ever becomes rich, yet their's is the happiest of all professions.

Such happiness comes alone from the relief of suffering or the saving of a human life, yet above all else the average doctor is one of the most simple of the humans. Taken as a class they are natural students and never satisfied with what they have achieved, always trying to gain more knowledge in their chosen profession. They are poor financiers, fleeced by all sorts of schemes, yet generous in the extreme. They, above all classes of men, enjoy the friendships of life. Doctors live lives in many respects like all other men and yet the close friendships are dearer to them than other professions, and as their lives near the end those friendships grow stronger. Life seems more sweet, not only for what there yet is ahead, but by reason of the past with its memory of loyal friends.

To be a little better physician tomorrow than he is today is the aim of every true

member of our profession. We all know that we are far from perfect, but it is the hope that we can still be better and more useful that gives us our greatest inspiration and only when all our strength fails can we ever give up. Some one else some day will take our place in life and only by leaving some work a little better done will we be remembered after our day is passed. Yet we have today a wonderful day, to work the hardest as our days grow shorter.

In the twilight the older men should leave the common cases to the young men who are just starting and devote their time as consultants on the more difficult cases. Research offers great opportunities to the experienced members of our profession and with their fund of practical knowledge these men should be the real leaders of our profession. Certainly the last years of a useful medical career should not be devoted to raising chickens or operating filling stations or simply sitting in idleness.

E. W.

American Public Health Association

The American Public Health Association announces that its sixty-third annual meeting will be held in Pasadena, California, September 3-6.

Dr. J. D. Dunshee, health officer at Pasadena, has been appointed chairman of the local committee on arrangements.

The president of the association is Dr. Haven Emerson of New York and the president-elect is Dr. Eugene L. Bishop of Nashville. Dr. Kendall Emerson is executive secretary.

PLAN FOR MEDICAL CARE FOR THE INDIGENT SICK

JOE BUNTON, M. D.

CHEYENNE

In the years gone by we have been more interested in listening to papers on gall bladders, prostates, diabetes, etcetera, than to one on medical economics. Since the depression I am sure we are changing and now begin to give sober consideration to this unpleasant subject.

The biggest real problem before the medical profession today is its present and future economic position. Our's is the greatest and most independent profession on earth—and yet how many of you will honestly advise a young man who has to earn his own living to spend seven or eight years of his life and \$7000 or \$8000 of his or someone else's money to enter a profession which you and I have permitted to become neglected financially.

There are today millions of people in the United States who depend for medical attention upon the charity of others—individuals or public organizations. The day when there will be a job for everyone will never come. From the time of Noah's boat ride until the last of the human race on earth the problems of the poor have been and will be existant. Is it any wonder that this subject has finally fairly forced itself upon us. It is a great burden, and while we may find a better way to support it, yet it will not become less in size. I am interested in the medical profession being paid a fair monetary remuneration for what it does. Our profession never did owe the rest of the world a cent and doesn't now. Yet how much does the world owe the medical profession? The advancement of our science has given man over twenty years longer to live and besides has lessened a great deal of his aches and pains.

In March, 1930, Dr. Harry M. Hall, a past President of the West Virginia State Medical Society, wrote the following editorial in their medical bulletin:

"Who is responsible for the poor? Certainly not the doctors. The medical profession has nothing to do with their poverty. It is the economics and the chaotic living conditions of the outside world. They cannot

obtain a livelihood, so are not fed, sheltered or clothed. They therefore, through lack of resistance, fall prey to disease. No chain store gave them food. No mail order house gave them clothing. No statesman worked out a solution for their maintenance with self respect. No politician gave their plight a real thought. Mergers, combines and chain stores threw some of them out of employment. It was too late to get anything else. What will be done with them? Shoulder them on the hospital and let the doctors do what they can. But how? Free of course. Up go hospital rates. Then critics dispose of us in sarcastic terms about the high cost of medical care. Had we collected our accounts and had no promiscuous free service no one would have ever heard of the high cost of medical care.

"Our philanthropy was really the cause of our undoing."

How does that sound to you? In proportion to our professional and economic progress, how much better are we doing today than did our predecessors of centuries ago? Our federal, state and county governments pay out 100 cents on the dollar for everything they get, except what they get from you and me. They pay you and me from nothing at all, up to 50 per cent, and tax you and me full schedule to help pay for the support of the same paupers. Never has the offer been made to cut the doctor's taxes 50 per cent. Look into the future and begin to think what you are going to do. It sometimes looks to me as if we would never learn that our one hope of salvation is in sticking together. I don't care how much I dislike a man personally, I see no sense in wrecking myself financially in order to get a job away from him. Yet that happens all over the country in medical circles. Now we have to stick together, because we have proved in countless instances that we can't get anywhere if we don't. Surely there are enough of us who will stick together, when we have to, to convince the occasional outlaw that he is on the wrong road. There is no reason

why governmental organizations should buy their medical services for less per cent than they buy their coal. Is it any easier or more pleasant to serve patients "on the county" or on the F.E.R.A. than those who pay their bills? I think you will say quite the contrary. Therefore for a start in the right direction it seems to me that the average 50 per cent of minimum fees is a generous offer on our part, and that we ought to have it.

The plan for the care of the indigent of the county I wish to submit to you is an outgrowth of the so-called Iowa Plan, which is being used with great satisfaction in Polk County, Wisconsin. Very similar plans are in use in several counties of Illinois and Minnesota. The plan has been submitted to the Minnesota State Society. There are eleven counties in Iowa using the original plan. Scottsbluff, Nebr., has just voted to put this plan into effect.

The system is one of collective bargaining between the organized local medical unit and the authorities charged with the care of the indigent sick. The local society agrees to provide the poor in the county with certain types of services or all types of services for a specified sum. This sum is then paid into the Society and the relief authorities' responsibility ends there, except in the authorization of the cases. The Society has the full rights for the distribution of sum received. The Society adopts a standard fee, usually the fees that are in effect in the community for private pay patients. The members of the Society then submit their bills to the Secretary according to the predetermined schedule. The Secretary assembles the bills against the Society and a committee of the physicians meet and audit the bills for fairness. The committee O.K.'s the bills or makes such adjustments as may seem necessary. When the corrected bills are returned to the Secretary he totals the bills for all members and pro-rates the funds according to the volume of work done. In this plan each doctor gets a per cent of the regular fee for all the work he does. If the work is heavy his per cent is less than when it is light. It will vary in different counties as some counties pay much more into the Society than others.

In some places where this type of contract with the relief authorities has been in effect the men donate their services to the Society and the funds are used to further the program of the Society. The system of leaving the funds in the Society has many points to recommend it. A few of them are:

Removes necessity of collecting state and local dues.

Gives the Society an opportunity to launch an aggressive organization campaign. The doctors of the county will be more desirous of belonging to the Society and will be more regular in their attendance.

Pays for speaker's expenses, which permits the Society to have better speakers that do not hesitate to return when they are assured that at least their expenses are paid.

If an emergency arises the Society is in a position to act without hesitancy in regard to the cost.

Either system has a strong tendency to knit the members into a centralized body. Membership drives are unnecessary as only members of the local medical Society participate in the operation of the system.

I believe this plan is of material benefit to the indigent case as well as the doctors. A patient has lived in the county for years and paid taxes then finally becomes a county charge, why shouldn't he have the right to choose his own doctor so long as he is a member of the county Society? That seems only fair to me. Why shouldn't all doctors in the country derive some benefit from the county charity funds? They all pay taxes. They all do a great deal of charity work anyway.

How shall the indigent cases be determined? That is best done by the county commissioners hiring a capable nurse to look into the financial status of each case. If a doctor is called on a case in emergency and later finds that the patient can afford to pay for the service then he has the right to make the charge and collect the fee. One should always endeavor to keep a case from becoming indigent if at all possible. The calls may come direct from the patient to the doctor of preference or as in some places they all go through the office of the county nurse. She calls the doctor the patient desires. If

he is unable to go or refuses to go then she calls some other member of the Society.

Where hospitalization is necessary of course the county board authorizes such service and pays for it. Hospital bills, drugs, serums, special appliances, glasses, etcetra, are paid for by the county board and not furnished by the Society. When this plan is started in a county as a rule the salary that has been paid to a regular county doctor is the sum that is turned over to the Society. Later with good cooperation between the Board of County Commissioners and the Medical Society the sum may be increased. It is essential when approaching the County Board with this plan that it be explained very thoroughly, and a contract presented which if satisfactory, must be signed by the Board and each member in the local Society. This plan has been upheld by the courts in every case. The plan is growing in popularity and up to the present time seems to be the most satisfactory way of handling indigent cases.

I have attempted in this short paper to give you the ground work of this plan without going into the details. I am sure it is worthy of your earnest consideration, and I hope will be discussed in your local Societies.

WYOMING NEWS NOTES

Dr. and Mrs. Evald Olson took a vacation recently and report a very interesting trip.

Dr. Olson visited with Dr. J. N. Davis at Kimberly, Idaho, relatives at Onterio, Oregon, drove on to Walla Walla, Washington, via Pendleton, Oregon, where he visited another college chum, Dr. Elmer Hill. Later Doctors Hill, Davis and Olson met at Lewiston, Idaho, for the State Medical meeting.

Dr. and Mrs. Olson and Dr. and Mrs. J. N. Davis went then to Spokane, Washington, to attend the three day meeting of the Washington State Medical Society.

On their return trip Dr. Olson stopped over at Wallace, Idaho, and went through the mines there. Except for an accident to their car at Gardiner, Montana, Dr. and Mrs. Olson feel that they enjoyed a real vacation.

Dr. F. A. Mills of Powell visited Rochester, Minnesota, this fall for post graduate studies. He extended his trip to the Century of Progress exhibition at Chicago and there had the misfortune to be delayed by illness for a few days. He returned home September 22.

On Saturday, September 22, the twenty-fifth wedding anniversary of Dr. and Mrs. Evald Olson was celebrated with friends from Lovell and Meeteetse at the Overland Hotel. The guests enjoyed dinner and an evening at cards. At 11 o'clock the wedding cake was cut and served with punch. Toasts and songs completed the evening.

Dr. and Mrs. W. W. Horsley and son, Billy, were guests of Dr. and Mrs. Evald Olson for the night after attending the anniversary dinner. Next morning they went antelope hunting, had the animal, and were back in Meeteetse at 10 a. m.

Health and Beauty

"Someone had estimated that the regular customers of the 'beauty' industry in the United States number over 20,000,000 women, or five times as many as the total number of men enrolled under the American flag during the World War. . . . The procession passing in and out of the beauty parlors spends more than half a billion dollars a year, we are told, or more than one and a half million dollars a day. . . . If these women realized the beauty that health brings, some of the millions of dollars now spent in beauty parlors might go, with better results, for healing the big and little illnesses that dim the eye, line the face, droop the erect figure, and play havoc generally with good looks."

"Every doctor can tell of beauty that has been brought back by restored health. Yet the big parade of women chasing beauty passes the doctor's office by, and pours a flood of gold into the purses of the beauticians. If the truth could only be implanted in woman's mind that there is no beauty like good health, the physicians would have a truly golden opportunity to improve the health and looks of the nation."—Editorial, New York State J. M., Feb. 15, 1934.

Lower Tuberculosis Death Rate for 1934

A large reduction in the tuberculosis death rate during 1934 is foreseen by statisticians of the Metropolitan Life Insurance Company who have been studying the mortality figures for the first quarter of the year. They expect the death rate from this disease among the industrial population is to run about 60 per 100,000 for this year. For the first quarter of the year the rate among insured white persons was 51.2 per 100,000, a "remarkably low figure."—Science News-Letter.

STATE STREET

THE ANSWER TO THE INVESTOR'S DILEMMA

History does not record a time more trying to the individual investor than the present. He is faced with a multitude of puzzling factors: Higher commodity prices, low interest rates, high-grade corporate bonds selling above their call prices, municipal bonds at extremely low interest yields, no definite statement as to governmental policies, inflation and many other things.

What shall the investor do? Shall he sell his bonds and buy common stocks in order to benefit from inflation? Will higher commodity prices increase the net earnings of his common stocks, or will they cause a loss of gross sales and hence lower net profits? Can the government budget be balanced without greatly increased taxes? These and many other questions are racing through the investor's mind, bewildering him to an extreme.

The situation demands constant supervision of investments. The investor may, of course, supervise his own portfolio, but this requires much careful study, a great deal of time and considerable expense. The difficulty is that it is not possible for the average investor, particularly a busy doctor with his mind and time filled with many other problems, to give the time required.

The answer is simple. He may hire capable, experienced and intelligent management. He can do so with a minimum of expense.

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In our opinion State Street is the answer to the investor's dilemma. The problem of what to buy and when to buy is, and always will be, paramount. State Street merits your consideration, not only as the answer to the present situation; but also as a way to avoid future dilemmas.

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WHAT THE NURSING SERVICE CAN DO TO AID THE HOSPITAL ADMINISTRATION

H. A. GREEN, M.D.
BOULDER

The rightful place of the individual nurse, the nursing supervisors, and the entire nursing service, in relationship to successful hospital administration, is essentially a study in coördination of effort, a treatise on coöperation. Without the interest and loyalty of the nursing service, it seems to us that the administration has already failed—for the management depends upon the nursing organization in many different ways.

Speaking in the merest generalities, if nursing, both bedside and general, is performed as it should be, patients will be satisfied; and the satisfied patient has more to do with future business than most of us realize. The individual who leaves the institution feeling that nothing has been left undone that might have been done for his well-being, is the one who will do the hospital the most good. A satisfied patient means easier collections, more cash in the till, more patronage for the institution in the days to come.

Public Health Service of the United States reports 7,000 hospitals in this country serving approximately 800,000 patients at all times. This means that at least 7,000 administrators are struggling with the problems of coördination between the members of the staff and service to the 800,000 persons constantly under their care. It is no exaggeration to state that service to the vast company under hospitalization in this country is very largely in the hands of the nursing staff in each of these 7,000 hospitals.

We might eulogize at length upon the place, the value, and the importance of the nurse as she stands between the relatives

and the patient, between other members of the administrative staff and the actual needs of the patient, and as she endeavors faithfully to fulfill her high calling in the matter of interpreting the orders of the physician and in terms of service to suffering humanity. This being true, how important it is that the closest sympathy and coöperation should at all times exist between the nursing group and the business administrators of our American hospitals.

In point of medical skill, the nursing service of any institution is the right hand of the physician. Likewise that same nursing service is the right hand of the business administrator in all matters pertaining to the final result in dollars and cents and of the work of the institution. With this double responsibility in view, let us study for a few moments the definite possibilities of the nursing staff in "putting over" in times of economic drouth a satisfactory service to all who come to our hospitals for medical care.

First, by coöperation born of a thorough understanding of business essentials the nursing service might eliminate the problem of entrance of patients (emergency cases excepted) without definite and satisfactory arrangements for the payment of accounts. In the case of the emergency patient, the tactful nurse will have no difficulty in establishing with the one who accompanies the patient the proper responsibility for business items in connection with her patient. We mention this item first, as it is usually the initial or early item in point of routine to establish the identity of the patient and his home and business connections before proceeding with extensive service, such as may be required.

Second, it is quite within the realm of nursing service to influence the patient, where necessary, toward curtailment of ex-

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pense during his sojourn in the hospital. On this point we quote a sentence or two from a recent issue of the *Modern Hospital*:

"While a proper standard of hospital care for various classes of patients is necessary and is provided for by the American College of Surgeons and similar organizations, I think that in our aim for perfection we have allowed certain unnecessary luxuries to become prevalent. There is a tendency to complain about cost, and at the same time to insist on private rooms and special nurses when small wards and group nursing insure acceptable and sometimes better care. Gregarious persons who cannot spend an evening alone must be indulged with a private room. While privacy is often desirable and sometimes necessary, the demand for seclusion when sick may be an expression of snobbery or unwillingness to bear minor discomforts with fortitude before other patients."

These few remarks may serve as merely suggestive of the opportunities in the path of the nursing service, for aiding the administration in the matter of wisely "selling" the patient on only such service as he is individually able and willing to pay for. In saying this, we have no reference whatever to the proper care of the patient or the length of time he should remain in the institution according to the best judgment of the physician, but only refer to the dispensable extras and unnecessary items which many patients seem to demand at the hands of the hospital staff.

Again it is well within the prerogatives of the nursing service to forestall dissatisfaction by careful management of the individual patient, thus avoiding for the hospital many of the unpleasant after-results which often lead into law office and the court room and cost the hospital many thousands of dollars. It is our experience that most of the criticisms, mistakes, oversights, and injuries to patients arise from incidents over which the nursing service has practically entire supervision. If this group of experiences alone could be entirely eliminated we should have taken a long step toward the coveted goal of complete coöperation

between nursing service and administration.

Someone is already prepared to ask: But how are you going to bring about such a desirable state of things? Our answer is prompt and in no wise uncertain. It can be done by careful analysis of problems in the field of nursing and by a definitely outlined policy which should be constantly kept before every nurse employed by the hospital—whether training school student, practical nurse, or graduate administrator. Why not take a leaf from the book of the modern day-school teacher and apply it to our hospital problems? The instructor of the little child is taught that it is unwise, unnecessary, and wrong to await the development of trouble before giving study to the problem of correcting possibilities of error. The child is definitely trained to avoid the habits that will develop into hazard later in life. Likewise, we believe the whole nursing service might be developed along lines of prevention of unfortunate experiences in handling of the patients under their care. For instance, the formation of local hospital councils, in which nurses and others might review carefully the possibilities of accidents and the care of medicines, supplies, instruments and so forth might lead to better protection of the patient. And again, the nursing routine in the matter of the use of hot water bottles, thermometers, splints, and a hundred other things might eliminate for the administration many of the problems that now must be dealt with.

Speaking again of the matter of economics, we have Dr. George D. Stephens of Winnipeg General Hospital to thank for the following suggestions:

"Hospitals, like individuals, find that many things are done without sufficient reason and might be discontinued with benefit. The hospital, like the individual, must cut its garment according to its cloth. It is doing it and doing it well.

"What are hospitals doing to meet present conditions and give service? They are eliminating the non-essentials, or as the public expresses it, 'cutting out the frills.'

"How many have said, 'We cannot reduce further,' and then have found they

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Is Our Growth

could. When the management states, 'We have cut to the bone,' it is seldom the case, and even if it is, it may be necessary to go through the periosteum.

"The administrator must have both ears to the ground, at least to sense any impending unpleasantness, and be in close touch with all phases of the work, otherwise he may feel a severe impact and have to taste something unpalatable. Economies, salary reductions, curtailment of services, elimination of non-paying departments should emanate from the administrative head and not be thrust upon him. The original suggester occupies a strategical position. He is always one up."

The nursing service, as well as the administrator, should know the costs and should know what can be eliminated or reduced. Conscientious effort on the part of every member of the nursing service might accomplish much, not only in the matter of better service, protection of the patient and coöperation with the medical staff, but also in necessary economies.

There is a topic which might properly be introduced in this connection which is a subject of itself and might require pages of discussion. We shall simply mention it here. While the patient may need education in the matter of hospital economy, the staff of physicians require this education fully as much and, we sometimes think, even more. If the administrator expects the staff to "come through" on the curtailment of expense, it seems to us that the problem is largely the responsibility of the nursing service to demonstrate what can be done without lowering the service in any detail.

Once more: The nursing service might help the administrator by uniting with him in a study of what other hospitals are accomplishing. This is a time when we must profit by every means known in the successful experiences of other hospital workers. A little idea here, a little saving there, a combination of services to save time and money in another place, all count in the aggregate showing of the hospital. And let us make this point clear: The aggregate showing that speaks for efficiency in point of dollars and

cents is more often than not the best kind of service to the patient and the most efficacious use of the time and skill of the staff.

In defense of more or less popular ideas that hospital service is expensive, we have these few lines to bring to your attention:

"Hospital charges are not excessive. Dollar for dollar they are justified by the importance of the service rendered for them—the salvaging of priceless human life. Cost for cost they are justified by the skilled service of technical and professional hospital workers. Compare hospital charges with charges for similar services in any field. The result will be favorable to hospital charges. On the average they are not a burden."

While the whole idea of harmony and coöperation between administrator and nursing service points toward economy, and necessarily so, we wish to make it clear that economy of dollars and cents, in the wider aspect, need not be at variance with the patient's best good or the best use of the doctor's time. As we see it, the right kind of administration will see to it that he has the type of person at the head of each department who will work for two outstanding results: The best good of the patient, plus the wise operation of the plant, and the best showing in dollars and cents.

Other suggestions that might be made are as follows:

Deputize someone in each department to look after economies in that department.

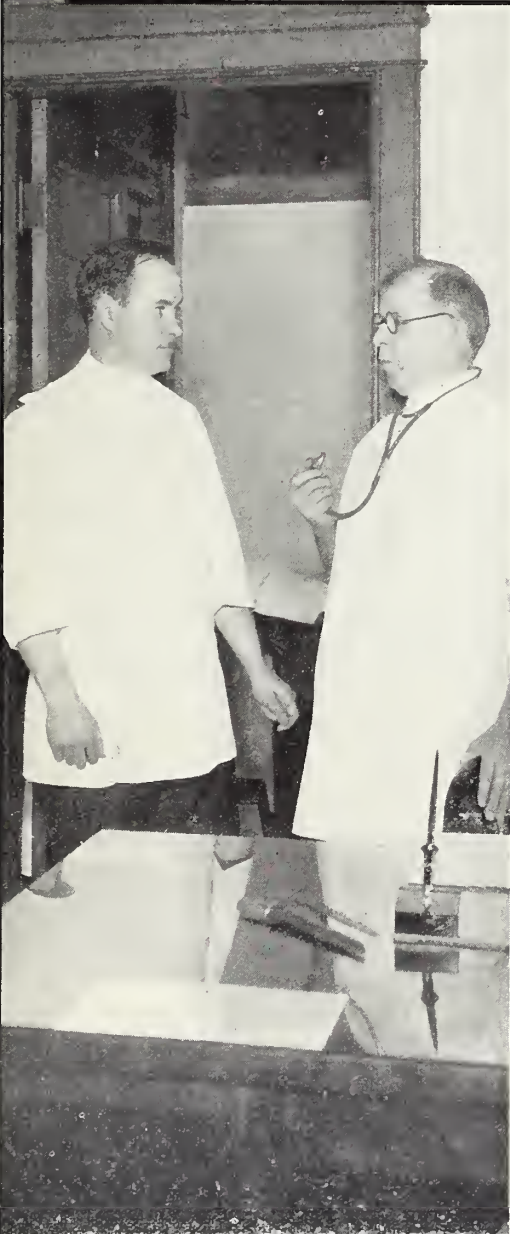
Where possible, close the laundry or surgery part time, perhaps two days a week, thus avoiding the need for high pressure steam on those days.

Watch electricity rates, and see that you are obtaining the lowest rates offered.

Work toward the manufacture of your own drugs as far as practicable.

In summarizing, it may be stated that the nursing department is in touch with, and largely dependent upon, every other department in the institution. Thus the closest coöperation is essential. For instance, the laundry, the household, the kitchen, the diet and special orders departments, the power house, the carpenter shop, as well as the professional departments are all in one way

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or another the servants of the nursing group. Many of the detail problems of heating, lighting and ventilating the plant become the responsibilities of the nursing department in serving the individual needs of the patient. And let it be said to the everlasting credit of nurses that detail service often requires more thought, diplomacy, and painstaking effort than do many of the administrative problems and larger affairs of the institution.

In closing, let us state that the nurse should be the first, and also the last, to see a patient in the hospital, either alone or in conjunction with the administrator and the physician, seeing that the patient has the best possible service in the beginning and during his stay. All this should be "tied in" with the best possible attention when the patient leaves the hospital. The psychology alone is well worth the effort and is a valuable adjunct to the hospital administration in the final influence of service rendered.

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EDITORIAL NOTES AND COMMENT

A Reminder To Late Voters

BALLOTS in the State Society's referendum on the proposed amendment to the By-Laws concerning "Gratuitous Medical Services" will be opened and counted by the Board of Trustees of the Society on December 19, 1934. No ballots received after that date can be counted. This, therefore, is a reminder to all members of the Society who wish to vote on the question but who have not yet done so that their ballots should reach the Executive Office of the Society before December 19. Return envelopes requiring no postage were enclosed with the ballots, which were mailed on October 20 to all physicians who were on that date members of the State Society.

What May We Expect In Health Legislation?

JUST a few days before election—November 1—Governor Ed. C. Johnson and Mr. Clarence L. Ireland, former Attorney General, were guest speakers at a luncheon sponsored in the Argonaut Hotel, Denver, by the Denver Public Health Council. This organization invited many representatives of the Council of State-wide Health Agencies, the Colorado State and Denver County Medical Societies, Visiting Nurse Association, and other welfare and health organizations. Attendance was splendid from both Denver and the State at large. The primary purpose was to hear a representa-

tive of each major political party discuss the possibilities for improving Colorado's health conditions.

Mr. Ireland discussed reorganization of the State Health Department, public health education, and the problem of sewage disposal—each briefly but clearly. He readily admitted the difficulties faced by any legislature due to general financial conditions and demands for lower taxes, but at the same time drew sensible comparisons of value as between health work and certain other governmental activities. He asked that the revamping of our health laws be considered apart from partisan politics. He paid high compliment to the work done by a quasi-official commission two years ago in studying our health laws and in presenting a bill for a complete reorganization of the health department. He read from the Republican platform that plank pledging his party toward this end.

Governor Johnson decried what he saw as a plan for "putting candidates on the spot" just before election. He readily admitted the crying need for new health laws and for more power and money in the hands of the State Health Department, but he felt that even as he had been forced to veto many appropriations two years ago, there would be a necessity of still further reductions this winter. His plea was for a better informed public and a better informed legislature. He recommended that the health agencies represented at the meeting form a committee to study the State's needs and

make recommendations to the incoming general assembly, so that he and the legislature might know from authoritative sources just what conditions exist, just what remedy is needed.

Governor Johnson had seemingly forgotten that just such a committee made just such a study and just such recommendations two years ago—made those recommendations concretely in the form of carefully prepared legislative bills. He had seemingly forgotten that the Twenty-ninth General Assembly, largely controlled by him and his political friends, had rejected virtually all of the recommendations.

Since that luncheon, election day has come and gone. Governor Johnson has been re-elected overwhelmingly, as was almost every other candidate, including legislators, who supported the "New Deal." Those health legislation bills presented two years ago are still available, still good, still needed. We hope Governor Johnson's memory will improve by the time he writes his inaugural address. He and his party cannot escape responsibility for Colorado's health situation again—certainly not when they will control two-thirds of both houses.



What Kind of Annual Meeting Do You Want?

LOOKING back upon the marked success of the scientific program and exhibits at the last State Meeting, we realize that it was largely due to the efforts of a diligent Committee on Scientific Work—which began its work early.

Fortunately a like Committee, under the chairmanship of Dr. Atha Thomas, is already getting under way for the 1935 session. In a few days members will receive questionnaires, answers to which will inform the Committee as to what the members want on the program, and also what talent and material will be available.

Give this matter careful thought. Contribute your comment and suggestions. And, return the questionnaire promptly, please!

The Great Quintet—Laennec, Koch, Roentgen, von Pirquet, Trudeau

ADVANCE in human knowledge is not accidental. It results from the work of men capable of building higher on the foundation of established facts. Nowhere in science is this better shown than in the age-old conflict which man has waged against his arch enemy, tuberculosis. Among the army of builders who have contributed to our present day knowledge of this scourge, five names lead all the rest.

The first of these, Laennec, recognized a hundred years ago, that more accurate knowledge of the disease must precede any hope of its control. The old method of searching for tell-tale sounds in the lungs by pressing the ear to the chest was not enough. One day he saw a boy scratching one end of a log while a companion listened to the sounds transmitted at the other. He applied the law of conductivity of sound to the diagnosis of tuberculosis in the lungs—and our modern stethoscope is the result.

Fifty-two years ago, on March 24, 1882, Robert Koch announced that he had discovered a germ always present in active tuberculosis disease and had produced tuberculosis by injecting it into animals. He named his new discovery the tubercle bacillus. Laennec, through the perfecting of diagnosis, Koch through the discovery of the cause, made their respective and momentous contributions toward the conquest of tuberculosis. Both recognized, however, that some method of still earlier diagnosis was needed, for the disease is vastly more curable when detected in its very beginning before it is revealed by auscultation and before the tubercle bacilli can be found in the sputum from infected lungs.

It was reserved for Roentgen to disclose the next great step in early diagnosis. A distinguished physicist, Roentgen was experimenting with the tubes invented by Dr. Crookes for the purpose of passing an elec-

B U Y
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SEALS



H E L P
FIGHT
TUBERCULOSIS

tric discharge through a vacuum. Roentgen made the startling discovery that reflected from the negative pole were some mysterious rays, capable of passing through solid substances impenetrable to light. He photographed the human body and revealed the bone and organs of a living man. With improved technic, the x-ray is now used as our surest method of discovering the spots and shadows in an infected lung which prove the presence of active or quiescent tuberculous disease.

The fourth great scientist, von Pirquet, added the last significant refinement in diagnostic procedure, the skin test which has been given his name. This discovery was based on the previously known fact that people suffering even mildly from certain diseases, or who have previously suffered from them, develop changes in their bodies which make them sensitive, as we say, to that particular disease. By the use of tuberculin, a harmless liquid secured from cultures of tubercle bacilli, von Pirquet made skin tests on individuals suspected of having tuberculosis in its early stages. If the skin grew red on the second day, he called the test positive since it indicated that the patient had been infected at some time with tuberculosis.

Laennec, Koch, Roentgen, von Pirquet—these are the immortals whose glory lies in their successive contributions to the warfare against an enemy which has claimed more human victims than all the wars of history.

With these methods of early diagnosis perfected there remains only the discovery of a specific cure. To date, none has been found. The most important contribution along this line was made by Dr. Edward Livingston Trudeau, a young New York physician who went to Saranac Lake, N. Y., in 1873 to await death when informed he had tuberculosis. In those days it was taken as a matter of course that anyone who had the disease would die. He discovered that the more he rested the better he felt. He was soon convinced that rest was absolutely necessary if a person with the disease was to recover, and when his health improved, he opened in 1884 a small one-room cottage for the treatment of others. This cottage, as

described in Dr. Corper's editorial last month, was called "The Little Red," because of its color. It proved to be the nucleus of the huge sanatorium which today bears Dr. Trudeau's name and was the beginning of the sanatorium movement in the United States.



Methenamin in Carbuncles

A RECENT report from the Mayo Clinic comments on the rationale of intravenous methenamin therapy in carbuncles, particularly those occurring in diabetes. Carbuncle is, of course, a deadly complication in diabetes and has long borne a mortality rate ranging from 25 to 60 per cent. The Mayos are now avoiding operation completely in this condition. The essential items in their treatment are the following: 1. Absolute bed rest. 2. Rigid control of glycosuria. 3. Thick gauze and cotton dressing soaked with equal parts alcohol and saturated solution of boric acid, kept hot. 4. Daily intravenous injection of 40 per cent methenamin solution for seven days. After central necrosis has occurred, artery forceps are gently inserted and spread to facilitate drainage.

The dose of methenamin is made sufficient so that traces of formalin may be detected in the pus. This amount is probably sufficient to inhibit bacterial growth and may also stimulate the natural defense mechanism of the organism. In several instances blood cultures positive for staphylococcus have become negative under this procedure. Symptomatic improvement has also been noted. The mortality rate in this series was definitely better than in those where in methenamin was not used.

Intravenous methenamin injections have been given with apparently beneficial results in other septic cases. One case was apparently dying of staphylococcal pyemia with multiple abscesses and osteomyelitis in the body of a vertebra. He recovered with this therapy. The dosage recommended has been without harm. In a few instances hematuria has been present after seven or eight injections, but no organic changes or dire consequences have been recorded.

ACUTE CONDITIONS SIMULATING THE SURGICAL ABDOMEN*

WILLIAM H. MAST, M.D.
GUNNISON

The diagnosis of various acute abdominal conditions can often be very confusing, especially when atypical signs and symptoms are present. Non-surgical disorders of the heart and blood vessels, lungs and pleura, the parietal abdominal nerves, kidneys and ureters, and various other intra-abdominal organs may begin with, or may demonstrate during their course, certain signs and symptoms quite typical of surgical conditions of the abdomen. It is with these we are here particularly interested.

The importance of a careful history in every case has been stressed until it may seem trite. However, if a careful history preceded every physical examination, the errors in diagnosis would be greatly reduced. The physical examination should include all systems, with particular attention paid to the eyes, respiratory and cardio-vascular systems, extremities, reflexes and skin. The rectal or vaginal examination should be as much a routine as laboratory procedures. After the confidence of the patient has been gained, careful inspection and gentle palpation of the abdomen should follow. Particular attention should be given to the location of pain, tenderness and rigidity.

Probably the most prominent symptom of acute conditions that simulate the surgical abdomen is pain. Careful history of the onset, nature, location and radiation of pain will aid materially in establishing a working diagnosis. There is no satisfactory method of measuring pain other than questioning the patient before and during the examination. Pain reacts differently in the normal, hyposensitive and sensitive patient. Libman¹ has made a careful study of pain in the different types of individuals, and classifies them according to the pain experienced when the examining thumb is applied to the styloid process of the mastoid bone. He par-

ticularly emphasizes the substitution symptoms present in the hyposensitive individual, by which pain may be replaced by paresthesias, such as pressure, burning or numbness.

Particular attention must be given to the type of pain, whether spontaneous or induced by palpation. Inflammatory pain, due to acute appendicitis, for instance, begins gradually and grows more severe. The patient does not move and the knees are usually flexed. Gripping pain, accompanied by tossing from side to side in bed, is usually from colic or obstruction. Sudden pain points toward perforation or strangulation. The ability to produce or intensify the original pain by palpation over the suspected lesion is often of definite value.

Considerable confusion and variance of opinion exists in the conception of abdominal pain. Viscera do not respond to stimuli in a manner similar to other structures of the body. This may be frequently observed during local anesthesia. And yet, we are all familiar with conditions of acute abdominal pathology in which pain does exist in the involved organ and is intensified by deep pressure during palpation. Visceral pain is often due to marked or moderate distention or altered peristalsis of the involved structure. It becomes more severe when either the mesentery or the parietal peritoneum is affected.

Certain organs frequently refer their pain away from the site of pathology. Pottenger² has recently expressed this conception very well. The anatomical arrangement of the central nervous system enables pain from a viscus to be referred along the spinal nerves whose cell bodies are in close relationship in the spinal cord with the cell bodies of the afferent neurones from the involved viscus. Painful sensations from abdominal viscera are conveyed centrally by the splanchnic or autonomic nerve fibers. The spinal nerves, along which pain from a viscus is referred, assume a definite segmental distribution which is quite constant

*Read before the Sixty-fourth Annual Session of the Colorado State Medical Society at Colorado Springs, September 20, 1934. Illustrative case histories are taken from cases encountered while resident physician at the Colorado General Hospital and from the records of private practice.

for each organ. The radiation of renal pain, for instance, is usually definite. The association of pain in the neck or left arm, the sternum or epigastric region is a common occurrence of coronary artery disease. Yet, various anomalous radiations of pain occur. Pains in the epigastric, precordial and left shoulder area have been relieved by removal of a chronically diseased appendix; and a precordial pain, considered angina pectoris, has been relieved by removal of a left ureteral calculus. (Finkelstein³.)

Carnett⁴ has stressed the important differences between pain and tenderness of the abdominal wall and that of abdominal viscera. He believes that acute pain and tenderness of the abdominal parieties is seldom associated with acute intra-abdominal lesions, but is due to a neuralgia of the spinal nerves. Spinal conditions such as arthritis, lordosis, and scoliosis cause a chronic neuralgia of these nerves. When acute toxemia such as infection from cold, tonsillitis, or spinal trauma occurs, an acute neuralgia of these nerves may supervene, with resulting symptoms of an acute abdomen; the fever vomiting, and leukocytosis, Carnett believes, are merely manifestations of the existing infection. He emphasizes the importance of pinching or scratching the skin to detect hyper-sensitiveness. If found, it may be abolished by blocking off the area with procain hydrochloride. Then, if tenderness of the organ in question is present, a true inflammatory lesion is very certain to exist. He notes that visceral tenderness is apt to disappear after the abdominal muscles are actively tensed, while parietal tenderness persists.

This theory may prove practical and safe in the hands of one as skilled as Carnett. No doubt neuralgias do cause a great deal of confusion with surgical conditions, and careful examination of the spinal nerves along their entire course for pain and tenderness will be of value in many doubtful cases. Indeed, many conditions, such as early pneumonia, may be associated with a toxic neuralgia, causing abdominal symptoms. However, if this be true, it seems just as plausible that an acute intra-abdominal lesion may result in sufficient toxemia to cause neuralgia as a secondary manifesta-

tion. Furthermore, many parietal abdominal symptoms are those of referred pain due to the close proximity of the spinal nerves to the pathological process.

It is difficult to adapt Carnett's theory to all cases. It seems more applicable to chronic conditions. The frequent association of localized pain and tenderness of the parieties with no other pathology except intra-abdominal does occur, and with relatively enough frequency to validate the viscerosensory theory or Head's segmental theory of referred pain. He admits that pelvic inflammation is frequently associated with parietal symptoms. It is possible that the parietal peritoneum, which is very sensitive to irritation of any form, is more frequently involved in pelvic inflammation. This necessarily involves irritation of the intercostal nerve endings with reflex changes, such as pain, tenderness and involuntary muscular rigidity. It has been our observation that abdominal conditions, such as pyelonephritis and acute appendicitis are very frequently associated with hypersensitiveness of the parieties as well as tenderness and pain on pressure over the involved organs. We must be very careful of our diagnosis of neuralgia in the presence of acute abdominal symptoms.

A number of interesting cases, recently encountered, have demonstrated the difficulties in many diagnoses. The first case is that of a school teacher, female, aged 21. The illness began with pain across the lower back and right lower quadrant; it was sharp and persisted for several days when headache, some fever and vomiting appeared. There was no history of previous gastrointestinal distress, and the past history was essentially negative. The family physician found tenderness over McBurney's point, and with the above symptoms, made a diagnosis of acute appendicitis. The patient was sent to the hospital nearly a hundred miles distant.

During the trip to the hospital, she noticed weakness of the muscles of the left leg. The admission temperature was 100, pulse 110, and the leukocytes numbered 11,600, with 75 per cent polymorphonuclear cells. There was generalized tenderness over the entire

abdominal wall, more so in the right lower quadrant, with some voluntary rigidity over this area. Partial flaccid paralysis of the left inferior extremity, with absence of supra-patellar, knee and ankle jerks was noted. The next day the right inferior extremity showed similar findings. The spinal fluid revealed moderate pleocytosis, with increase of total protein and dextrose. A diagnosis of acute anterior poliomyelitis was made on admission, confirmed by clinical findings and course in the hospital. Brady and Lenarsky⁵ have recently reported a case of poliomyelitis in the second stage which simulated acute appendicitis.

Various hemorrhagic diseases may cause a confusing picture. Our second case is that of a male, aged 17, who was struck in the abdomen by a baseball six weeks prior to hospitalization. From that time he had been confined in bed with pain in the right lower part of the abdomen. There had been no nausea, vomiting or chills, but some fever was noticed at times. Past history revealed almost constant poor health, with repeated attacks of rheumatism. Three months prior, the right hip was "swollen," and the right leg could not be fully extended. The admission temperature was 100, pulse 110, and the leukocytes numbered 8,300, with 82 per cent polymorphonuclear cells. A marked hypochromic anemia was present. Physical examination was essentially normal, except for a semifluctuant mass in the right lower quadrant 10 cm. in diameter, with a point of tenderness just above the inguinal ligament. Some tenderness was also present over the right lumbar region. Motion was restricted in the right hip joint. X-rays of the pelvis, hips, chest and lumbar spine were negative. Intravenous urography revealed a normal genito-urinary system. Barium meal showed a normal gastrointestinal tract. The cecum was movable and it was felt that the above mass was independent of the cecum.

The former pain recurred in the right lower abdomen and became quite acute. Surgery was instituted. The mass noted was found to be entirely inside the psoas sheath, and to contain 300 c.c. of old, clotted blood.

A definite history of bleeding was obtained after operation from the mother, and one brother living was also said to bleed easily. A history of rheumatism, swelling and pain in the hip joint might have suggested hemophilia. Emergency surgery would have been avoided had a blood coagulation time been made.

Quite frequently a diaphragmatic pleurisy and incipient pneumonia may simulate the acute abdomen. Pain may be altogether abdominal, or may be associated with pain in the shoulder or neck. Usually there is no involuntary rigidity, although hyperesthesia exists. The flushed facies, the dilatation of the alae nasi, a slight cough, painful respiration or a disproportion of the respiration-pulse ratio, should suggest a chest condition. The temperature is usually higher in pneumonia or pleurisy than early abdominal lesions. An x-ray of the chest may be of aid many times in which a paucity of physical findings exists. While rigidity and tenderness may be noted, deep pressure is usually well borne.

To illustrate, a third case is that of a female, aged 21, admitted to the hospital with a diagnosis of acute appendicitis by her physician. Four days prior she noticed a slight cold, which had persisted. The day of entrance there was a severe chill, accompanied by pain in the right lower quadrant. The temperature was 101. Pain was followed by nausea and vomiting. No history of similar attacks could be obtained. Past history was negative except for rheumatic fever followed by mitral stenosis. Physical examination revealed the following positive findings: Excursion of the right lower thorax was diminished; the lungs were resonant, but the breath sounds were harsh over both bases; the heart was slightly enlarged to the left, and a palpable thrill was present over the precordium; moderate tenderness prevailed over the entire abdomen, marked in the right lower area, with some hyperesthesia. Voluntary, but no involuntary, rigidity was present. The temperature was 103 within a very short time; pulse, 140; respiration, 38 per minute. The leukocyte count was 24,900, with 89 per cent polymorphonu-

clear cells. X-ray of the chest showed lobar pneumonia of the right lower lung, with diaphragmatic involvement.

Abdominal herpes zoster may occasionally simulate a surgical abdomen. The lesions may be preceded several days by pain in the abdomen, fever, and even gastrointestinal symptoms. To illustrate, case No. 4 is that of a male, aged 58, seen at home with a history of sudden pain in the right lower quadrant followed by nausea and vomiting. The temperature was 102, pulse 110 and the leukocytes 18,000 with 84 per cent polymorphonuclear cells. There was moderate tenderness and involuntary rigidity of the right lumbar and right lower quadrant areas. Morphine was required to relieve the pain. A diagnosis of possible acute appendicitis was made, but operation was deferred and twenty-four hours later the typical lesions of herpes zoster appeared over the right loin and right abdomen.

Carcinoma may cause diagnostic difficulties at times. Case No. 5, which was recently reported⁶, is that of a male, aged 34, who was sent to the hospital with a diagnosis of ruptured peptic ulcer. He had had chronic indigestion for the past six years, consisting of flatulence and constipation, with a loss of 25 pounds (11.3 kg.) in weight. The day prior to illness he drove a tractor and the following day experienced a sudden, lancinating pain in the right upper abdomen, associated with involuntary muscular rigidity. Two days later he was admitted to the hospital in mild shock, with rigidity of the entire abdomen, normal temperature, and pulse of 130. The leukocyte count was 13,700, with 87 per cent polymorphonuclear cells. The rigidity soon disappeared and distention occurred, after which a large mass extending slightly below the umbilicus and 12 cm. to the left of the mid-sternal line was palpable. The patient expired on the fourth day and necropsy revealed a primary carcinoma of the liver which had ruptured spontaneously.

Tabetic crises with gastric symptoms, although rarely encountered, must frequently be eliminated. Severe pain and rigidity of the abdominal wall, together with vomiting,

may occur. The temperature does not rise. There may be moderate leukocytosis. Stigmata of syphilis make the diagnosis easier, although a tabetic may have a true abdominal lesion. Case No. 7 is that of a male, aged 36, with a history of vague gastrointestinal disturbance. He was admitted to the hospital after experiencing a sudden pain in the epigastric region which was not referred. There was some nausea with vomiting. The temperature was normal, pulse 140, and the leukocytes numbered 13,000. Tenderness and involuntary rigidity of the entire abdomen was found. The pupils were equal, but reacted sluggishly to light. The knee jerks were present but diminished. At operation no intra-abdominal pathology was encountered. The blood and spinal fluid were later examined and showed a positive Wassermann reaction. A history of a primary penile lesion was obtained.

Various kidney conditions frequently simulate an acute surgical condition of the abdomen. The typical location and radiation of pain, the high temperature, the frequency of chills, the usual symptoms of urinary disturbance and the laboratory findings are quite familiar. However, acute blocking of the renal pelvis or ureter by an anomalous blood vessel; kinking of the ureter and torsion of the renal pedicle may occasion mistaken diagnosis, especially with a normal urinalysis. The use of the x-ray, ureteral catheterization with pyelograms or intravenous urography, when indicated, will be of frequent aid. Patient No. 9, a female, aged 48, gave a history of recurrent pain in the right lower quadrant, associated with nausea and vomiting, for the past four years. On admission, the temperature was 99, pulse 80, and moderate leukocytosis was present. There was marked tenderness in the right iliac fossa, but no rigidity. Some tenderness to hammer percussion over the right kidney was noted. A diagnosis of subacute appendicitis was made and surgery contemplated when dysuria and frequency developed. A pyelogram of the right kidney revealed a bifid pelvis with dilatation of the upper pelvis and a kink at the point of junction of the upper with the lower main ureter. The

pain was relieved after ureteral catheterization, followed by the use of solution of pituitary.

Insect bites may be the cause of abdominal symptoms. Recently the Black Widow spider has caused considerable attention. The poison from the bite is a powerful toxin, and apparently has particular affinity for nervous tissue. Case No. 10 is that of a male, aged 34, who noticed a Black Widow spider on the genitalia. The spider was instantly removed, and very slight local reaction occurred. Two hours later he noticed pain in the right groin and consulted a physician. Within three hours there was a severe colicky abdominal pain. Nausea, vomiting and board-like rigidity of the abdominal wall, extending to the right lumbar region, soon followed. The pulse and temperature were normal, the blood pressure and white count were not taken. Very soon there was a generalized rigidity of all skeletal muscles with orthotonus. The pain became more intense and morphin in half-grain dosage was repeated several times for relief. Had not a definite history of a spider bite been obtained, surgery might have been instituted when the abdominal symptoms alone predominated.

No attempt has been made to cover the various symptom-complexes which may simulate the surgical abdomen. Every abdominal emergency is a potential catastrophe, and without careful and prompt diagnosis, many cases are subjected to surgery which is unnecessary and entirely unjustified. Too often a wrong diagnosis occurs not because of insufficient knowledge or lack of experience on the part of the physician, but because of a careless history, hasty examination, and failure to analyze carefully each symptom as a part of a composite picture—the sick patient. Ryle has aptly said, "The art of medicine is the art of noticing."

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⁶Mast, W. H., and Streamer, C. W.: Primary Carcinoma of Liver With Spontaneous Rupture. *J.A.M.A.* 100:1684 (May 27), 1933.

⁷Reported through the courtesy of Dr. J. D. Bartholomew.

ABSTRACT OF DISCUSSION

Haynes J. Freeland, M.D., Denver: On one occasion I urged a patient to be operated upon for an acute appendicitis. He refused. Twenty-four hours later it was demonstrated that he had lead colic. I am sure I had taken sufficient time for history and examination. I had worried plenty and had thought of everything, it seemed, except lead poisoning. Certainly convincing signs and symptoms of acute appendicitis must not have been present.

The important thing is to decide whether the patient has or has not intra-abdominal pathology that demands an emergency operation. It is relatively secondary what the cause may be if the symptoms are not due to abdominal disease. Actually there are not many common separate intra-abdominal conditions demanding emergency surgery. Except for certain gall bladder and pancreatic difficulties, ruptured extra-uterine pregnancies, and a few conditions caused by mechanical accidents in the female pelvis, most acute cases arise from pathology in the stomach, small or large bowel, of which appendicitis and intestinal obstruction are the most frequent.

As my experience grows, in my mistakes I feel that I have usually created the confusion myself. I am sure it is not too emphatic to say that nearly always there are sufficient signs and symptoms in acute abdominal disease to make a correct diagnosis. In importance I would rank the abdominal examination first; second, the history of the present illness; third, the examination beyond the abdomen; fourth, the laboratory findings; fifth, the remote history.

To me, localized tenderness, if properly evaluated as to intensity and character, is the most accurate guide; second, rigidity; third, the amount, location and type of pain. Abdominal examination should mean and always include a rectal and vaginal examination. Inspection and percussion give valuable clues. Palpation is essential. With unhurried care and confidence, with the patient turned to either side as well as on his back, by examination when the abdomen is voluntarily tensed as well as when relaxed, a picture is created that clinches a suspected diagnosis or excludes one if it is not there.

The stethoscope, so long displaced by the stomach tube in postoperative importance, returns to equal standing, and in aiding diagnosis ranks high. Auscultation of the abdomen gives the earliest help in intestinal obstruction, is almost as valuable in acute appendicitis, and often serves a real purpose in differential diagnosis between acute gall bladder disease and appendicitis. I believe it is worth while and should be a part of each examination.

The history of the present illness is second in my scheme only because it is hearsay and because it loses value so thoroughly if it is not accurate. To minimize a complete physical examination by stressing the examination of the abdomen is not my purpose. Finding a blue line

in the gums would certainly call for a review of the abdominal signs. Facts in the past history may be decisive. Examination of a specimen of urine is requisite. The total and differential white count will most often be of real help, and the more accurate the diagnosis the more likely the blood count will conform to expectations. Ignoring its possible significance is dangerous. It is an index of the immediate pathology as well as of the patient.

A flat x-ray plate of the abdomen will possibly be a routine part of the record in cases with acute symptoms. Its value increases the oftener it is used.

In my experience acute pyelitis has cost me the most embarrassment, especially in children. Pneumonia follows second, and likewise in children it creates greater confusion. Tabes with gastric crisis I have encountered a few times, but a negative diagnosis of abdominal disease was apparent. I have not heard of a similar experience, but I have examined two patients in the crisis of exophthalmic goiter in which acute abdominal disease had been diagnosed.

One time I removed a boy's appendix, convinced that he did not have acute appendicitis. An osteomyelitis of the ileum with a subsequent ileopsoas abscess was the cause of his symptoms.

It is worth while to record that a full bladder in children may cause difficulty. In a case of tuberculous meningitis and one in an epileptic child, a diagnosis of acute abdominal disease had been made. The abdominal findings were insufficient and catheterization changed the diagnosis.

E. R. Mudge, M.D., Denver: Both Dr. Mast

and Dr. Freeland have spoken of the laboratory. I naturally am more interested in the laboratory point of view in diagnosis and I feel that we should keep in mind the fact that we have in the body a tissue, namely bone marrow, and in touch with this tissue the blood which should be watched at all times, particularly in the cases which we have under discussion. Whenever we have any condition, whatever it may be, that condition will be reflected in the bone marrow. The reflection may be very trivial or it may be very profound. Our difficulty is to determine between a non-infectious or a non-pyogenic and a pyogenic condition. I believe that is usually the problem before us.

We will find in pyogenic conditions that the bone marrow reacts with the formation of a granular type of cell in addition to the possible production of a leukocytosis or increase of white cells. A leukocytosis, of itself, is not as important to determine, in my estimation, as the character of the reaction of these leukocytes, particularly the polymorphonuclear cells. These cells we find, whenever there is an infected process, will show reactions with the increased production of younger and younger cells of bone marrow type, and at the same time we will find that there are degenerative changes which take place in the cytoplasm of these cells so that the study of the nucleus of the cell and the study of the granules within the cytoplasm of these polymorphonuclear cells often enables us to determine whether or not we have a pyogenic condition present. Thus in addition to making your differential count, also carry out the Schilling count and also observe the character of the granules present.

THE ROLE OF THE OPHTHALMOSCOPE IN GENERAL PRACTICE*

RALPH W. DANIELSON, M.D.
DENVER

This paper constitutes a plea that men doing general practice and who are in the specialties will use an ophthalmoscope. There are a great number of men who will give up and say, "Well, I shall send my patients to an eye man and let him look at them." That isn't the thing I am asking and urging you to do. Look at these fundi through an ophthalmoscope yourself! I realize that you will have to look at ninety-nine out of a hundred before you will find the one that will be of special and positive value, but when you do find that case it means something.

One of the reasons why physicians do not use an ophthalmoscope is because they feel that there is something mysterious, mythical or supernatural about it, whereas it is one of the simplest things in the world. An oph-

thalmoscope consists of three essential elements—a light to illuminate the inside of the fundus so that you can see it, a set of lenses to focus the rays, and an aperture to look through. That is all there is in this instrument. The first thing in using an ophthalmoscope is to get into a comfortable position. Have the patient sit forward toward you so that you can look at him easily. The second thing is that when you are looking at a patient's right eye, you use your right hand and your right eye, and when you are looking at his left eye, you use your left hand and your left eye. You cannot cross them over without rubbing noses. In other words, the right eye for the right, and the left eye for the left eye. Have the room dark and hold the aperture very close to your own and the patient's eye. If then the view is not satisfactory don't hesitate to open pupils in order to see through. We men who do eye work admit that per-

*Read at the Sixty-fourth Annual Session of the Colorado State Medical Society, Colorado Springs, September 22, 1934.

haps in the majority of instances we dilate pupils in order to obtain a good view of the fundus and to give an accurate interpretation or opinion. You could not expect a man who uses an ophthalmoscope only a tenth as much as we do to see around any better without dilating the pupil. Therefore, I would recommend to you that you dilate the pupil. The danger of glaucoma is very slight, although it is safer to be sure the intraocular pressure is not increased by testing the fluctuation in the eye ball with the two forefingers. If you do not care to use homatropin to dilate a pupil, you can use a substance which acts on the dilator fibers, such as adrenalin, ephedrin or cocaine. Then neutralize the mydriasis with one-fourth per cent eserine ointment.

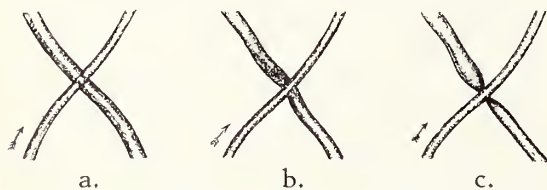
You may then say, "I don't know what lens to use, so I am not going to start." My answer to you is that unless you are a neurologist or somebody who is going to be actively engaged in actually measuring choked disc and conditions of that nature, forget about the lenses. Just keep turning the lenses around in the dial until you can find one which brings the retina into focus.

Why do I make this plea that you use the ophthalmoscope? The eye is not only an organ of vision, but is the ideal area in the human body, the only place in the human body, in which Nature has placed, out in plain sight, nerve tissue and also blood vessels that you may observe. The blood vessels are by far the more important, for you not only see them but you see changes therein and in the tissue that result from changes in the blood vessels. The second reason why I make the plea that you use an

ophthalmoscope is that it is one of the very best ways in which you can make not only a diagnosis but you can give a more accurate prognosis. The diseases in which it is of great value are diabetes, nephritis, arteriosclerosis, multiple sclerosis, blood dyscrasias, brain tumors, brain abscesses, skull fractures, syphilis and eclampsia.

I therefore wish to mention a number of conditions illustrating what to look for in the general condition of the patient when you find these particular signs in the fundus. The head of the optic disc where the nerve comes into the eye corresponds to the blind spot. To the temporal side of the disc is the macula or area of most acute vision.

A choked disc may be recognized by three things: Focusing with an ophthalmoscope; second, by parallax; and the third thing is the angry appearance. The head of a normal disc looks placid; the blood vessels lie there as if they were asleep; they look as if they belong there. They are small, whereas in a choked disc the blood vessels are dilated, they seem to protrude, they are very tortuous and are very often accompanied by exudates and hemorrhages. Thus the term



Gunn—Shows diagrammatically, different appearances presented by a retinal vein where crossed over by artery. a. In health, the underlying vein dimly traceable underneath the artery. b. In the early stage of arterio-sclerosis; the vein somewhat displaced in direction of arterial circulation (indicated by arrow) and its flow slightly obstructed. c. In advanced stage of the same; the vein greatly narrowed where crossed, and distended on peripheral side.



de Schweinitz—Ophthalmoscopic picture of papilledema and semidiagrammatic representation of a longitudinal section of the nerve-head.

we use for the appearance of a choked disc is that it looks angry. This combined with the forward protusion of the nerve head constitutes what is known as a choked disc or papilledema. Papillitis is a term which has been hard to understand but, briefly, it is an inflammation of the optic nerve rather than an edema. We will not discuss differential diagnosis, but the things that cause papillitis are syphilis, meningitis, retinosis, brain abscess, encephalitis, infectious diseases, sinus disease, iritis, and retrobulbar neuritis. The latter is frequently due to multiple sclerosis. Ninety-five per cent of the cases of papilledema are due to brain tumor, brain abscess, or brain trauma, but choked discs do not always mean brain abnormality; they sometimes mean retinal arteriosclerosis. Optic atrophy is found in tabes, general paresis, severe anemias, multiple sclerosis, skull fracture, orbital tumors, glaucoma, occlusion of central retinal artery, arteriosclerosis, old papillitis and old papilledema, retinitis pigmentosa and other local eye diseases.

The most striking thing in arteriosclerosis is what we have all heard about as the crossing signs. In a normal eye the arteries will cross the veins and ignore each other. However, when an artery in a fundus becomes sclerosed and hard, it then presses upon the vein and makes it get out of the way. It becomes the boss of the situation and tells the vein to get in its proper place, and the place is out of the way. That is a sign of retinal arteriosclerosis. Many such cases present a marked tortuosity of the blood vessels. Normally in an eye you notice that the blood vessels are more or less even, the changes or undulations in the arteries and veins are not frequent, whereas in this condition they are more numerous and more acute.

When a fundus merely shows arteriosclerosis we call it retinal arteriosclerosis, but when, in addition to the arteriosclerosis there are exudates and hemorrhages, it is known as arteriosclerotic retinitis. That is the word in common usage—the word that should be used is retinosis. There is an excellent article on the subject of arterios-

cerosis by Marcove in the April, 1931, issue of *Colorado Medicine*. When an eye ground shows either exudates or hemorrhages, what does it mean? The following are the things to consider in the general examination; Arteriosclerosis, diabetes, nephritis, leukemia, syphilis, sepsis, anemia, endocarditis, and trauma. Purpura and scurvy are less frequent. This is a list that you can follow through. Ninety-nine times out of a hundred the diagnosis will be included in that list.

Tortuous retinal vessels are caused by congenital anomalies, arteriosclerosis, papillitis, papilledema, leukemia, congenital heart lesions, thrombosis of the central retinal vein. These are less frequent. What will give dilated retinal veins? Papilledema, papillitis, thrombosis of the central retinal vein. In a case of thrombosis of the central artery of the retina, or a so-called embolus of the central artery of the retina, there is a marked ischemia. The prognosis for vision is then almost hopeless; the prognosis as to life is bad. What will give dilated retinal veins? Papilledema, papillitis, thrombosis of the central retinal vein, cyanosis tumors, cellulitis, epilepsy, emphysema, heart lesions, convulsions, and mitral tenosis.

Edema of the retina is a most important phenomenon in eclampsia. Physicians who do gynecology and do not watch the fundi in cases of eclampsia are missing a great opportunity for diagnosis and accurate prognosis.

These few examples may serve to illustrate the simplicity and manifold usefulness of the ophthalmoscope to the practitioners of medicine. It is one of the most generally useful and exact instruments in our armamentarium. It is hoped that this paper will serve as a stimulus to its more widespread use and the assumption of its rightful place among our diagnostic and prognostic procedures.

ABSTRACT OF DISCUSSION

Melville Black, M.D., Denver: The one great thing is to impress upon the average practitioner of medicine the importance of using the ophthalmoscope for diagnostic purposes insofar as lesions of the fundus of the eye are concerned, and their significance. Of course the great trouble is for the average man to get interested enough

in the subject to use the ophthalmoscope with any regularity to the point of becoming familiar with the things that he see, and of being able to recognize the abnormal from the normal. It takes a good deal of experience, time, and energy to know what you see. It can be acquired and you can become enthusiastic as you get further along into the subject. The modern electric ophthalmoscope is a very easy thing to use.

There is no place in the human body where one can see the uncovered blood vessels as in the retina. They are there seen under magnification of about seven or eight times, so that you almost have a microscopic view of the circulation in the eye, and it is only a matter of a few months until you are able to recognize certain pathological conditions which at first will escape your attention.

Edward Jackson, M.D., Denver: The principal obstacle to the beginner is the fact that he has to look through a small aperture in the pupil into what appears to be quite a large space, magnified by the cornea and lens of the eye about fifteen diameters. If you want to overcome the difficulty take a little practice looking into a room through a keyhole. The main condition is that you must have your eye close to the keyhole, and you must have it close to the pupil that you are looking into.

In my experience of teaching the junior medical students how to use the ophthalmoscope, I never had one who didn't in the first demonstration see the optic disc and recognize the general color of the fundus at first lesson, and the first thing that I had to teach them was their proper position in reference to the patient. The patient should be sitting in a chair with a high back and so that he can't lean back and get away from you. The modesty of your women patients, perhaps, leads them to get away and draw the pupil away, but if you have a high-backed chair where they can't get back, then you can get right up to the eye providing you place your chair alongside of that of the patient. Most medical students begin very much as they would for examining a nose or throat—getting pretty nearly in front of the patient and trying to see into the eye. You can't do it that way. You've got to get alongside, and then if the patient will lean a little toward you and you lean toward the patient, you use your left eye to look into the patient's left eye and your right eye to look into her right eye.

W. H. Crisp, M.D., Denver: I am glad to find that a good many more of my colleagues who are in general medicine are using the ophthalmoscope regularly at the present time than used to be the case years ago. That is partly due to the fact that in medical schools it is much more general now to teach some use of the ophthalmoscope.

One very important point in recommending this procedure to the general practitioner is to urge upon him that in the first place he shall learn to be able to look into the eye and then that he shall look at as many eyes as he can, and that at first he must satisfy himself with trying to know how the normal eye looks.

Most general practitioners will never feel completely confident to diagnose pathological conditions of the fundus when they run across them, but if they are used to the normal fundus and can be fairly confident when they see something that isn't within the normal range or suspect that they are seeing something that is not within the normal range, then they are likely to help their patients and put their patients on the right road as to diagnosis or further investigation of the eye condition in a way which they would not

do if they floundered along without any knowledge of the ophthalmoscope.

It is very difficult for anyone who isn't acquainted with the subject to realize just what the technic ought to be by description, although it can be done. It is possible to read a careful description of the fundus examination with the ophthalmoscope and go ahead and practice by yourself, but I think for most people it is desirable that you shall go to one of your ophthalmologist friends, have him demonstrate to you how to examine the fundus if you don't know already, and then look at as many eyes as you possibly can.

I prefer not to use homatropin if I am not certain about the condition, but cocaine or euphthalmine. Also look at as many pictures as you can. Get an atlas of conditions of the eye ground and learn normal conditions, and if you see a departure from the normal, ask the ophthalmologist about it.

Dr. Danielson (closing): I know that if those of you who live in the neighborhood of Denver will come to the out-patient department at the Medical School any morning between eight and ten, every man on the service will be flattered if you will give him the opportunity to let you see a long series of normal and pathological fundi. Those of you who are not in that neighborhood can go to clinics in your own vicinity or to your local ophthalmologist. You will be surprised as to how quickly you will learn to recognize abnormalities.

I again urge you to dilate the pupil. Don't look through a keyhole if you can look through a door. Although I admit, with Dr. Jackson, that many times you see more through a keyhole than you would through the open door!

PUBLIC HEALTH NOTES

Favorable Mortality Rates

It is extremely gratifying, not only to Public Health officials, but to all citizens of this state, to find that in a report just released by the Census Bureau of the United States, our general mortality rate for Colorado has dropped to 11.4, while the infant mortality rate in Denver has been lowered to the astonishing level of 58.1. These figures compare well with large cities in every portion of the United States except those on the Western coast, where we find San Francisco with an infant death rate of 39.3, Oakland with 38.2, and Portland with 37.5. The death rate in Los Angeles is 55.9.

It is well worth while to compare the death rate during the first year of life in Denver since 1927, when 81 deaths per 1,000 were recorded. In 1928 it rose to 91, dropping in 1929 to 84. In 1930, Denver had its highest death rate, 93; it was reduced to 76 in 1931, to 69 in 1932, and, as above indicated, it has now fallen to the very satis-

factory level of 58.1. Our Health Department is to be congratulated upon this significant performance and all practicing physicians should lend their support to effecting an even better record for 1934.

Shorter Isolation in Scarlet Fever

The attention of physicians and others concerned is called to a recent change in the prescribed period of isolation for those ill with scarlet fever.

Following a careful study made by Deputy Commissioner William H. Best, of the development of secondary cases of scarlet fever, a trial period with a twenty-one day isolation period was inaugurated in Brooklyn, on July 1, 1932. In the other boroughs uncomplicated cases of scarlet fever were held until the thirtieth day. Analysis of the results of this test indicates that the number of additional secondary cases which may be expected to arise from the reduction of the isolation period is so small, that this is far outweighed by the advantages gained from the shorter isolation. From now on, therefore, throughout the city the period of isolation will be twenty-one days in uncomplicated cases of scarlet fever, irrespective of the presence of any desquamation. Complicated cases, i. e., those in which discharging ear, mastoid, nose infection or enlarged glands are present, will still be subject to the regulations heretofore in force.—Bulletin, Department of Health, City of N. Y.

Our Obligation to The American Public Health Association

"The American Public Health Association is an essential part of the public health machinery of the country * * * for the reason that it furnishes, and it alone furnishes, the common ground on which all of the various public health interests, both the scientific and the administrative agencies, investigators and officials, come together in a great clearing house of experience and into dynamic contact with inspiration of mass psychology.

"Since 1872, the Association has brought together regularly every year the diverse interests and varied experiences of those engaged in the work of human conservation,

and has thus provided that each individual worker should share the knowledge and the idealism of the entire membership.

"To reflect upon what would have been the course of related events had some particular agency of large and general influence not existed, is perhaps the best way of approximating its (The American Public Health Association's) contribution to progress. * * * It seems safe to say that had the work not been done the present development of public health work would be at least five years behind where it is.

"In rendering this service to the public, the Association has exercised an influence that has been a very real service to all health departments—federal, state and local. There is not a health officer in this country, conscious or unconscious of the fact, that has not been tremendously helped in his work through the influence of the Association; there is not a laboratory * * * that has not had its field of service enlarged and its work more appreciated as a result of the influence of the Association; there is not a chair of hygiene or sanitary science in the colleges and universities of this country that has not had larger classes as a result of the influence of the Association; there is not a school of sanitary engineering, there is not a sanitary engineer interested in the construction of waterworks and sewerage that has not received very large and very material assistance through the influence of the Association; there is not an industrial establishment that employs public health nurses or medical officers in industrial hygiene that is not a debtor to the Association; there is not a life insurance company in this country that is not indebted to the Association to the extent of thousands of dollars for added premiums and unclaimed policies. And so it is clear that both those with special interest, the technical group and those with general interest, the public, have been for years the beneficiaries of the Association; its blessings, like the life-giving dew of Heaven, have fallen on all, the just and the unjust, the appreciative and the unappreciative."—Extract from address by W. S. Rankin, M.D., during his term as President of the American Public Health Association.

BOOK REVIEWS

Bright's Disease. A Clinical Handbook for Practitioners and Senior Students. By J. Norman Cruickshank, M.C., M.D., D.Sc., F.R.P.S. (Glas.), M.R.C.P. (Lond.). Senior Assistant to the Muirhead Professor of Medicine, University of Glasgow; Assistant Physician, Glasgow Royal Infirmary; Visiting Physician, Southern General Hospital, Glasgow. Baltimore: William Wood and Company. 1933.

The author puts forward a concise view of the newer concepts of Bright's Disease. With a brief review of renal physiology, he immediately launches into his classification of "Nephritis." In this he follows the general ideas of Volhard and Fahr. He still advocates the existence of a focal nephritis other than the well recognized embolic type—a position not well substantiated. In addition to depicting the typical clinical syndromes of the various types, he adds a chapter for the discussion of each of the following: Treatment, functional tests, edema, uremia, kidney structures, and an outline of classifications other than his own.

The value of the book is in its brief, concise and clear way of handling a subject about which there is still a wide difference of opinion. His views, with the exception already noted, are those that are now most commonly held.

C. F. KEMPER.

The Modern Treatment of Syphilis. By Joseph Earle Moore, M.D. Associate in Medicine, The Johns Hopkins University; Physician in Charge Syphilis Division of the Medical Clinic and Assistant Visiting Physician, The Johns Hopkins Hospital, Baltimore. Charles C. Thomas, Baltimore, Maryland.

This well written, well planned book is a distinct addition to the voluminous literature on the treatment of syphilis. It is as valuable a book on this subject as Dr. Stoke's recent book, although it is of a very different character and style. It lacks the great number of tables, graphs and charts found in Stoke's and for that reason may not be as handy for quick reference. It impresses one as a complete, competent and thoroughly up-to-date statement of the most modern treatment of the various stages of this disease. It will appeal strongly to the conservative physician, and, if followed, will lead to good results with few untoward toxic pitfalls.

There is one sentence in the book which struck me very forcibly. The author is discussing the old controversy as to whether there is such a thing in syphilis as a cure. Near the top of page 18 he is speaking of a patient with syphilis and says, "His interest in whether or not he is cured of syphilis ends with his death; after that he does not care."

I think this is an excellent book and can recommend it heartily.

O. S. PHILPOTT.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles' on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M.D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md.

With the collaboration of Francis Gilman Blake, M.D., Yale University, New Haven, Conn.; Vernon C. Davis, M.D., Rush Medical College, Chicago, Ill.; Dean Lewis, M.D., Johns Hopkins Hospital, Baltimore, Md.; John W. McNee, M.D., University College Hospital, London, Eng.; John H. Musser, M.D., Tulane University, New Orleans, La.; Walter W. Palmer, M.D., Columbia University, New York, N. Y.; Pasteur Vallery-Radot, M.D., University of Paris, Paris, France; Arthur L. Bloomfield, M.D., Stanford University, San Francisco, Calif.; Campbell P. Howard, M.D., McGill University, Montreal, Canada; W. McKim Marriott, M.D., Washington University, St. Louis, Mo.; George Richards Minot, M.D., Harvard University, Boston, Mass.; Charles C. Norris, M.D., University of Pennsylvania, Philadelphia; E. Rehn, M.D., University of Freiburg, Germany; Russell M. Wilder, M.D., The Mayo Foundation, Rochester, Minn. Volume III. Forty-fourth series, 1934. Philadelphia, Montreal, London: J. B. Lippincott Company. 327 pages.

Volume three offers an interesting list of subjects dealing with several fields of medicine. The first section, Medicine, includes two papers on the heart. One author, William G. Leaman, M.D., of Philadelphia, considers "The Heart and Athletics," and advises a thorough physical examination of all college students before allowing them to participate in athletics. Maude E. Abbott, B.A., M.D., F.R.C.P., of Montreal presents a very inclusive article on diagnosis of congenital heart disease which is illustrated by pictures, diagrams and case histories.

Three contributions to endocrinology are given in the papers of Albert M. Snell, M.D., of Rochester, Minn., on the suprarenal cortical hormone in Addison's Disease; S. Katzenelbogen, M.D., Baltimore, on hyperthyroidism as a feature of a more inclusive disease; and a third paper suggesting thyroid hyperfunction as a cause of rickets, quoting experiments with fowls.

Francis M. Rackemann, M.D., Boston, offers generalized comments on the conception of allergy with especial reference to recent and proposed developments. The section is closed by a paper from Geo. P. Reynolds, M.D., Boston, in which he stresses the value of psychotherapy in the treatment of either organic or functional disease.

The surgical section begins with a plea and suggestions for early diagnosis of cancer of the stomach by J. Shelton Horsley, M.D., of Richmond, Va. Edwin M. Miller, M.D., Chicago, urges conservative treatment in acute intussusception. A capable discussion of functional uterine hemorrhage is presented by Leopold Goldstein, M.D., of Philadelphia. Several very good plates on surgical procedure attract attention to the detailed treatment of the patient with hyperthyroidism by Drs. Guthrie and Conklin of Sayre, Pa. The section is concluded by a detailed case report and comment on calcification of the pericardium treated surgically, and by an inclusive study on "Water Balance in Surgical Conditions," by Drs. Collier and Maddock of Ann Arbor, Michigan.

The consistently interesting section on Clinical Pathology deals with two cases of Hematemesis, presented by Louis Hamman, M.D., and G. Lyman Duff, M.D., of Baltimore.

In the section on Recent Progress, Lawson Wilkins, M.D., Baltimore, concludes his paper on immunization against contagious diseases of childhood by his discussion of whooping cough and measles. An interesting and inclusive article on otolaryngological anesthetics by Watt W. Eagle, M.D., of Durham, N. C., concludes the volume.

A. M. WOLFE.

Secretarial Notes and Comment

Edited by Harvey T. Sethman, Executive Secretary

SIXTY-FOURTH ANNUAL SESSION OF THE COLORADO STATE MEDICAL SOCIETY

Colorado Springs, September 20, 21, 22, 1934

PROCEEDINGS OF THE GENERAL MEETINGS*

10:00 a. m., September 20, 1934

The first general meeting of the Sixty-Fourth Annual Session of the Colorado State Medical Society was called to order in the Antlers Hotel, Colorado Springs, at 10 a. m. Thursday, September 20, 1934, by President Gerald B. Webb.

Dr. Webb: "It is my pleasure, ladies and gentlemen, to welcome you to the Sixty-fourth Annual Session of the Colorado State Medical Society. I would like to take this opportunity to thank the Committees and their Chairmen for the most excellent work they have done for the Medical Society in these critical times. They have my fullest gratitude.

"Dr. Madler has prepared a splendid program which you are to enjoy. I am going to ask Dr. Ella Mead and Dr. Henry Sewall to escort your new President you have so wisely chosen to the platform for induction.

Dr. Madler comes to the platform.

"Ladies and Gentlemen: Dr. Madler, President of the Colorado State Medical Society." (Applause.)

President Madler: "Members of the Colorado State Medical Society and Guests: I wish that I could in a measure express to you my appreciation for the honor that you have bestowed upon me,—the highest honor within the gift of the Society. But since words fail me, I shall ask you to let my work in your behalf during the coming year speak for me.

"Perplexing problems affecting the medical profession will no doubt come up for solution during the coming year, but with your cooperation the officers and the Committee members of our Society will ever strive to solve these problems, bringing greater honor upon the profession.

"Ours is the most altruistic profession on earth, and I would not have it otherwise. But in the face of constantly changing social conditions, is it not about time that we stopped constantly asking ourselves, 'What more can we do as physicians for the people?' and give some thought to the possibility of an obligation on the part of the people to the medical profession? I think so, and with that thought in mind, never forgetting the heritage of the medical profession, I shall do the best I can for you.

*Addresses, papers, and discussions which formed the scientific proceedings of the General Meetings and which have not been published in this or in the November or October, 1934, issues, will be published in succeeding issues of Colorado Medicine within the first eight months of 1935.

"We shall open the program this morning with a Fracture Seminar, and I shall ask Dr. H. I. Barnard to come up to the platform and announce the essayists."

Dr. Barnard: "Mr. President and Guests: The footnotes on the program pretty well describe the Seminar. This is more or less of an experiment. If it proves out, we will try to enlarge it another year; if it doesn't, it will probably die a natural death.

"We have attempted, on Fractures, to choose two men who do orthopedic work only and two men who do fractures in general surgery.

"The first speaker on this Seminar will be Dr. Atha Thomas of Denver, who will speak on "Fractures of the Neck of the Femur."

This paper was read by the essayist.

Papers followed on these subjects:

"Fractures in and Around the Ankle," by Fred H. Hartshorn, M.D., Fort Collins;

"Fractures in and Around the Elbow," by H. R. McKeen, M.D., Denver;

"Fractures of the Spine," by Robert G. Packard, M.D., Denver.

Dr. Barnard gave a short summary of the Seminar, which was followed by discussion of same by Drs. H. W. Wilcox, Denver; John B. Hartwell, Colorado Springs; G. W. Miel, Denver; Leonard Freeman, Denver, and R. E. Holmes, Canon City.

The next paper presented was on "Acute Conditions Simulating the Surgical Abdomen," by William H. Mast, M.D., Gunnison. Discussion was opened by Haynes J. Freeland, M.D., Denver, and later followed by Dr. E. R. Mugrage, Denver.

President Madler: "The Colorado State Medical Society will be represented tomorrow in Chicago at the Secretarial meeting by Dr. Macomber and by our Secretary, Harvey Sethman. In fact, they were so anxious to have Mr. Sethman present that they have furnished aerial transportation to him. He is leaving this afternoon and will be back with us Saturday morning.

"In the absence of Dr. Macomber, who was to describe these exhibits to you, Dr. Zur Williams, who has had much to do with all of them and who is familiar with the various types of exhibits, will now give you a short demonstration of these exhibits."

Dr. George Zur Williams: "To those of you who have been in the exhibit room this year it is unnecessary to call your attention to the fact that they are more worthy than ever of your attention. We have, besides the General Scientific Exhibits, exhibits in several of the specialties, in which some of you may be more particularly interested. The exhibitors have worked harder than ever this year, have spent hours of time, much effort and considerable financial outlay for our enjoyment and for our instruction. You will be well repaid for your study of the various specimens and models that are shown."

Dr. Williams followed with a detailed description of each group of exhibits.

Announcements were made and the meeting adjourned.

2 p. m., September 20, 1934

The meeting was called to order by Dr. F. E. Rogers, Denver, First Vice President, who presented Dr. Madler for the purpose of giving his Presidential Address.

The Scientific Program next proceeded as follows:

"Aneurism of the Thoracic Aorta," R. H. Kampmeier, M.D., New Orleans, which was discussed by Drs. Robert Levy and J. N. Hall, Denver; and closed by Dr. Kampmeier.

"Diagnosis of Mastoiditis," H. I. Laff, M.D., Denver, on which discussion was led by T. E. Carmody, M.D., Denver, followed by discussion by Drs. H. L. Hickey, Denver; J. J. Pattee, Pueblo; C. A. Ringle, Greeley.

"The Common Cold," C. E. Harris, M.D., Woodmen; on which discussion was opened by Harvey S. Rusk, M.D., Pueblo, and followed by Drs. Carl H. Gellenthien, Valmora Sanatorium, New Mexico; T. E. Carmody, Denver; O. M. Gilbert, Boulder, and closed by Dr. Harris.

"Traumatic Surgery in Auto Accidents," Charles W. Streamer, M.D., Pueblo, discussed by George B. Packard, M.D., Denver.

There being no further business, the meeting adjourned.

9 a. m., September 21, 1934

President Madler called the meeting to order and the program proceeded as follows:

"The Apple Diet in Treating Diarrheas of Infants and Children," Hermann B. Stein, M.D., Denver, discussion on which was led by F. P. Gengenbach, M.D., Denver, and closed by Dr. Stein.

"Early Diagnosis of Peripheral Circulatory Diseases," Herman C. Graves, M.D., Canon City, discussion on which was opened by Clough T. Burnett, M.D., Denver, followed by discussion by Drs. Jaeger, Denver; O. M. Gilbert, Boulder, and closed by Dr. Graves.

"Cancer of the Breast," Sanford Withers, M.D., Denver, discussion on which was opened by John B. Hartwell, M.D., Colorado Springs, followed by W. W. Wasson, M.D., Denver, and closed by Dr. Withers.

"A Major Public Health Problem in Colorado," by Edward N. Chapman, M.D., Colorado Springs. Discussion led by Paul J. Connor, M.D., Denver, followed by Drs. L. W. Bortree, Colorado Springs; W. C. Howell, Colorado Springs, and closed by Dr. Chapman.

"Changing Concepts in Nephritis," by Harry Gauss, M.D., Denver, discussed by W. B. Yegge, M.D., Denver.

A brief recess ensued.

Dr. Madler called upon Dr. Gengenbach of Denver to introduce the guest speaker for this session.

Dr. Gengenbach: "In every specialty there is always some outstanding man. Dr. Brenneman is an outstanding man in pediatrics because to me he illustrates the security of a man who is always able to keep both feet on the ground. They often criticize us pediatricians because they say that one year we have a certain kind of food that we say all infants should have and next year we pick another food. That isn't true with Dr. Brenneman, either in infant feeding or any other pediatric work.

"Dr. Brenneman is professor of Pediatrics at the University of Chicago, but strangely enough, he teaches the medical students from Northwestern University Medical School. He is the Chief of Staff of the Children's Memorial Hospital of

Chicago. When I say 'Chief of Staff,' he is Chief of Staff. We read about Mussolinis and we read about Hitlers and we read about Stalins and Roosevelts, but here is a man who, from year to year for a great many years, has been selected by the Board to be Chief of Staff. They put on his shoulders the responsibility of selecting the whole staff for the hospital,—not the pediatric staff alone, but the surgical and all the other specialties.

"It is a great pleasure to present my friend, Dr. Joseph Brenneman."

Dr. Brenneman, of Chicago, spoke to the subject, "Acute Abdominal Conditions in Children."

The meeting then adjourned.

2 p. m., September 21, 1934

The meeting was called to order by President Madler, who introduced Dr. Gerrit Heusinkveld to preside over the Symposium on Obstetrics, which consumed the afternoon period.

Dr. Heusinkveld: "Mr. President, in arranging this Symposium, it was the injunction of the Program Committee to get something together that would fit the house obstetrician.

"After all, most of the babies born in the United States are born at home, but most of the books on obstetrics are written about hospital practice.

"So this afternoon the prime consideration will be obstetrics in the home. We trust that the Symposium will be worth while.

"Our first speaker is Dr. John R. Evans, Denver, who will discuss 'Prenatal Care.'"

Dr. Evans spoke to this subject, followed by Dr. Gunnar Jelstrup of Denver, who discussed "Normal Labor."

Dr. Lyman Mason of Denver spoke on "Diagnosis of Complications."

Dr. Edward L. Harvey of Denver continued with the subject of "Management of Complications," and

"Postpartum Care" was discussed by Dr. H. V. Von Detten, Denver.

"The First Week of Life," was the subject of Dr. James B. Walton, of Denver.

Discussion on the Symposium was opened by Lowell Little, M.D., of Fort Collins, and followed by T. Mitchell Burns, M.D., Denver.

President Madler: "We owe thanks to Dr. Heusinkveld and his colleagues for this excellent presentation of a subject which is very important in the practice of medicine, particularly to the general practitioner.

"We are going to close this afternoon's session on time."

Announcements were made and the meeting adjourned.

9 a. m., September 22, 1934

The meeting was called to order by President Madler and the program proceeded as follows:

"The Dangers of Proprietary Drugs," Edward Jackson, M.D., Denver. Discussed by Drs. C. E. Harris, Woodmen; G. W. Miel, Denver, and closed by Dr. Jackson.

"The Role of the Ophthalmoscope in General Practice," Ralph W. Danielson, M.D., Denver. Discussion opened by Dr. Melville Black, Denver, followed by Drs. Jackson, Denver; W. H. Crisp, Denver, and closed by Dr. Danielson.

"The Surgical Management of Malignant Lesions of the Colon and Rectum," by George B. Kent, M.D., Denver. Discussed by Drs. Leonard Freeman, Denver; Louis S. Faust, Denver, and Dr. Kent closed by showing some slides.

Dr. Madler: "This Society is greatly honored today by the presence of the next speaker. The privilege and pleasure of introducing him to you belongs to Dr. C. O. Giese of Colorado Springs, who has known him for many years."

Dr. Giese: "I am sure it is a pleasure to me to introduce the speaker of the hour. At this time my memory goes back just about forty years, when I first met him and our acquaintance began."

"This man in reality needs no introduction. He doesn't need introduction at home, to the United States, or abroad."

"At the time that I first knew him he was my teacher. He has continued that teaching work in a broader sense. I say he is honored at home because he is still the Health Commissioner of Iowa, a position of no slight responsibility. He has been a member of the National Board of Medical Examiners since the beginning of that Board. He was one of its organizers. He has secured cooperation or reciprocity with at least one foreign country, and for his successful efforts in that direction he was made an Honorary Member of the Royal College of Physicians in Edinburgh."

"From the title of his paper, however, you see these higher honors do not impress him. He is still the general practitioner. Ladies and gentlemen, it gives me great pleasure to introduce Dr. Walter L. Bierring of Des Moines, President of the American Medical Association, the Health Commissioner of Iowa, but more than all that, a general practitioner who will speak to us on "Heart Disease and the General Practitioner."

Dr. Bierring spoke on this subject.

President Madler: "This Society is much indebted to Dr. Bierring for his enlightening discourse on this prevalent disease. We thank you very much, Dr. Bierring."

Announcements were made and the meeting adjourned.

2 p. m., September 22, 1934

The meeting was convened by President Madler, who announced that the Chairman of the Committee on Necrology was unable to be present, and that the Executive Secretary would read the report.

Mr. Sethman read the report, as follows:

REPORT OF THE COMMITTEE ON NECROLOGY

Mr. Chairman:

Will you please ask those present to stand as a token of respect to our deceased colleagues.

During the past year our Society has lost by death many valued members. The names of the departed and the dates of their deaths are as follows:

Marvin W. Reed, Denver, September 2, 1933.
Henry J. Becker, Sterling, September 27, 1933.
A. M. Chase, Denver, October 6, 1933.
David G. Thompson, Trinidad, November 23, 1933.
Frank R. Moore, Florence, November 27, 1933.
O. W. Spicer, Colorado Springs, January 3, 1934.
William W. Grant, Denver, January 8, 1934.
Luman B. Swaggart, Denver, January 13, 1934.
Paul C. Hutton, Aurora, January 27, 1934.
William J. Baird, Boulder, February 2, 1934.
Seymour D. Van Meter, Denver, February 27, 1934.
Samuel W. Miller, Utah, April 10, 1934.

Grant S. Peck, Denver, April 21, 1934.
A. C. Holland, Colorado Springs, April 28, 1934.
Walter S. Johnston, Pueblo, May 16, 1934.
William C. Finnoff, Denver, June 10, 1934.
H. R. Bull, Grand Junction, June 21, 1934.
William F. Spaulding, Greeley, June 28, 1934.
Gurney C. Wallace, Denver, July 7, 1934.
George M. Sands, Rifle, July 9, 1934.
George W. Holden, Denver, July 11, 1934.
Frank T. Stevens, Colorado Springs, September 6, 1934.

Evening

I know the night is near at hand.

The mists lie low on hill and bay.

The Autumn sheaves are dewless, dry;

But I have had the day.

Yes, I have had, dear Lord, the day;

When at thy call I have the night,

Brief be the twilight as I pass

From light to dark, from dark to light.

—S. Weir Mitchell.

Respectfully submitted,

G. M. BLICKENSDECKER, Chairman.

September 22, 1934.

President Madler called on Mr. Sethman for a summary of the action of the House of Delegates. This was given.*

President Madler: "The next order of business is a very pleasant one for me, and that is to install the newly elected officers of the Society for the year, with the exception of the President-elect who will not take office until next year."

"If the officers will kindly rise as their names are called, we will appreciate it. At the close we would all like to have the new President-elect come up on the platform and say a few words."

"First Vice President, Royal H. Finney, Pueblo; Second Vice President, C. E. Lockwood, Montrose; Third Vice President, F. A. Humphrey, Fort Collins; Fourth Vice President, G. E. Calonge, La Junta; Delegate to the A. M. A., J. W. Ames, Denver (two year term); Alternate to the A. M. A., A. J. Markley, Denver (two year term); Councillor for District No. 7, A. L. Burnett, Durango, (three years); Councillor for District No. 8, Lee Bast, Delta, (three years); Councillor for District No. 9, W. W. Crook, Glenwood Springs, (three years); Assistant Treasurer, John B. Hartwell, Colorado Springs; Member of the Committee on Publication, C. S. Bluemel, Denver, (three years); President-elect, Walter W. King, Denver."

Dr. King: "Mr. President, our distinguished President of the A.M.A., members of our Society and Friends: It is a trite thing to say that I appreciate this honor, for it is indeed an honor."

"About a quarter of a century ago, a few miles up Ute Pass here in Cripple Creek, in the old Opera House on Myers Avenue, there was a Republican convention which I recall very well. Shorty Beeman had just been nominated for County Commissioner. Shorty came honestly by his nickname since in previous years when he was a Justice of the Peace it was said of him that he used the court gavel as a walking stick."

"Shorty toddled up to the stage and started the expression of his appreciation by saying that he thought that he was so puffed up with the honor of this nomination that he believed he had grown a foot in the last few minutes."

"Just at that time, up in the gallery of the old Opera House, a Democratic heckler called out

*See Minutes of the House of Delegates, Colorado Medicine, November, 1934, pages 381-415.

in a loud voice and said, 'Don't worry about that, Shorty, you old fool; you will have to grow a lot to fill that job.'

"I realize that to fill this position I shall have to grow. Just at the moment I recall somewhere in the Scripture,—I don't remember where,—a reference to something like this: 'Who is he that, by giving thought, can add one cubit to his stature?'"

"However, while that is a little discouraging, I am impressed with the necessity of growth from my own standpoint to fill this position. I am coincidentally impressed with the necessity of support from each of you. Our immediate duty, which I know will be a pleasure, is to support the very remarkable man who is our present President, Dr. Madler.

"We don't want to fall in line with the thing that is very popular at the present time in this country, an attitude of throwing pop bottles at the umpire. Let us have an exhibition this year in his support of cohesion, rather than adhesion, becoming an unit in our action instead of simply clinging to an organization, for there never was a time in the history of medicine when organization means as much and presents as great a possibility as it does today.

"I heartily thank you." (Applause.)

President Madler: "Day before yesterday, when I was installed as President of the Society, I said that words failed me to express my appreciation for having received this high honor. Now words fail me to express my appreciation to two Committees which made this meeting such a success.

"Of course all the men on these two Committees did great work, but my personal thanks and the thanks of each and every one of you should go out to two men, two outstanding men. If one of them had known that I was going to say something about it, I know that he would not be sitting in the front row. I want Dr. Kenneth Allen to stand up and receive from you your acknowledgment of appreciation of the excellent work done in arranging the scientific program of this meeting.

... Dr. Allen was greeted by applause ...

"And on a chair in one of the back rows sits Dr. John B. Hartwell, Chairman of the Committee on Arrangements.

... Dr. Hartwell was greeted by applause ...

"The scientific program this afternoon is in charge of Dr. Kemper. The subject is 'Endocrine Seminar,' with Dr. Kemper presiding."

Dr. Kemper introduced the subject, and the Seminar was given as follows:

"Histology," Hugh Kingery, Ph.D., Denver;

"Pathology," George Zur Williams, M.D., Denver;

"Physiology," B. B. Longwell, Ph.D., Denver;

"Clinical Syndromes," Thad P. Sears, M.D., Denver;

"Surgery," Glen E. Cheley, M.D., Denver.

President Madler: "As you know, there were many innovations in this year's Annual Session. One of them was three full days of scientific program. It was said that the last afternoon could not be put over,—that it would be a failure. I think that the size of the audience and the attention that was given to the subject disproves that statement and should be a source of great gratification to the men who put on this excellent program.

"The meeting now stands adjourned."

REGISTRATION STATISTICS

Sixty-fourth Annual Session, 1934

(Exclusive of Woman's Auxiliary)

Members	421
Non-members, M.D. (from Colorado, 17 other states and Territory of Hawaii)	105
Dentists	2
Nurses	30
Students	28
Exhibitors	17
Others	25
TOTAL	628

The foregoing proceedings of the General Meetings and the minutes of the House of Delegates (Colorado Medicine, November, 1934, pp. 381-415) are hereby respectfully submitted to the Society.

HARVEY T. SETHMAN,
Executive Secretary.



State and National Health Insurance Studies

MOST readers of Colorado Medicine will have seen the recent editorials and comment in the Journal A.M.A. concerning the studies of health insurance and allied social proposals by the Committee on Economic Security in Washington. Belated though it was, recognition was finally given by that Committee to organized medicine, and the American Medical Association has assigned its experts to represent the medical profession in those studies. Officers and committees of our State Society are assisting the A.M.A. in every way possible toward the protection of American medical standards.

While recent interest has logically centered on these national studies, the Colorado legislative situation has not been overlooked, either by those who are advocating social legislation or by the medical profession.

Under the Governor and the interim committee of state senators and representatives, there has been created the "Legislative Interim Committee on Social Legislation," a committee of fifteen. This group is made up of representatives of labor, corporations, business men, welfare agencies, etc. Unfortunately there is no representative of the medical professions on this major committee. However, in creating a sub-committee to advise on whether or not Colorado should have any health insurance legislation this winter, and, if so, what kind, medicine is represented.

This sub-committee, created late in November and now known as the "Advisory Committee on Health Insurance," consists of two representatives each from the Colorado State Medical Society and Colorado State Dental Association, one representative each from the Colorado Hospital Association and the Colorado State Nurses' Association, and one attorney, a total of seven members. Those appointed by their respective organ-

izations and by the central legislative committee are: C. F. Kemper, M.D., T. E. Beyer, M.D., for the Medical Society; Henry Hoffman, D.D.S., and Louis Adelman, D.D.S., for the Dental Association; John Andrew, M.D., President of the Hospital Association; Ann Dickie Boyd, R.N., for the Nurses' Association, and Kenaz Huffman, attorney, as representative-at-large. The Committee held its first meeting November 23 and elected Dr. Hoffman chairman and Miss Boyd secretary. Frequent meetings will be held in the next few weeks, and it is hoped that the quasi-official status given this committee by the state government will result in real consideration to be given its judgment by the incoming legislature.

The Colorado State Medical Society, through President Madler and our Committee on Medical Economics, has offered the Advisory Committee on Health Insurance the Society's facilities and files.

* * *

Scientific Exhibits At State Meetings

MEMBERS of the Society are still discussing the merits and exceptional teaching value of the many scientific exhibits which were presented at the 1934 Annual Session at Colorado Springs. It is time, now, to project our thinking about scientific exhibits toward the 1935 session at Estes Park.

A few years ago it became the policy of the Society to present Certificates of Award to those exhibitors whose presentations were outstanding. Each year an award committee is selected from the non-exhibiting members present at the meeting. The selection is made by the Committee on Scientific Work, and the qualifications of individual members upon which selection is based are fairness, wide knowledge of medicine, and special knowledge in the departments which the exhibits represent.

The exhibits are graded as follows: Originality, 25 per cent; teaching quality, 25 per cent; length of time spent in preparation, 25 per cent; neatness, 25 per cent. The Award Committee members quietly study the exhibits throughout the first two days of the session, judging the percentages in each of the four divisions. When all of the members have completed a study of each exhibit, they meet, add up the percentages, and only then do they know who are the winners. This year the Committee was composed entirely of members of the Society from outside of Denver.

The quality of exhibit presentations began to improve with the awarding of certificates. Improvement has continued each year. This year it has been said that an all-time peak of excellence was reached. The question therefore is, can that peak still be surpassed again in 1935? It can, if members of the Society will it.

Each member soon will receive a questionnaire

about the 1935 Annual Session. In order to continue the advancing quality of the exhibits, which to some members are more valuable than the scientific papers, would it not be advisable to plan now to show some phase of your work in which you are especially interested? Fill out the questionnaire promptly and thus assure yourself of ample exhibit space at Estes Park.

THE COMMITTEE.

MEDICAL SOCIETIES

DENVER COUNTY

A moving picture depicting the life and work of Leeuwenhoek was shown at the first November meeting of the Society by Dr. James J. Waring, who preceded and accompanied the showing with interesting explanatory remarks. Attendance at this meeting was 155, and Drs. Harley Stuart Rupert, Joseph David Friedland and David B. Peters were elected to membership.

The Clinical and Pathological Society presented the scientific program for the second meeting of the month. Drs. C. E. Cooper and W. W. Barber talked on "Congenital Cyst of Right Ethmoid in a Child 3 Years of Age," Dr. G. E. Cheley discussed "Hyperinsulinism Associated with Langerhans' Adenoma Treated Surgically," a case report, "Carcinoma of the Lung," was given by Dr. J. J. Waring, and Dr. J. W. Amesse presented a case report on "Familial Jaundice."

* * *

DELTA COUNTY

Drs. A. C. McClanahan and L. L. Hick were the principal speakers at the regular meeting of the Delta County Medical Society held October 26 at the office of Dr. W. S. Cleland in Delta. Dr. McClanahan gave a report of the Colorado State Medical Society Annual Session in Colorado Springs and Dr. Hick presented a scientific paper.

LEE BAST,

Secretary.

* * *

FREMONT COUNTY

Dr. Leo W. Bortree of Colorado Springs was the guest speaker at a meeting of the Fremont County Medical Society held October 22 at the Municipal Building, Canon City. Dr. Bortree gave an interesting talk on "Coronary Arteriosclerosis."

ARCHIE BEE,

Secretary.

* * *

LARIMER COUNTY

The Larimer County Medical Society held its regular meeting at the Armstrong Hotel in Fort Collins, November 7. The first month of medical relief in Larimer County was reviewed. Dr. O. S. Fowler of Denver spoke on Visceroptosis, Renoptosis and the Adrenals. An interesting discussion followed the presentation of the paper.

L. D. DICKEY,

Secretary.

* * *

MESA COUNTY

Dr. J. E. Ford and Mr. R. S. Whipple of Grand Junction presented the scientific program at the regular meeting of the Mesa County Medical Society held November 20 at the La Courte Hotel in Grand Junction. Dr. Ford chose for his subject "Phlegmasia Alba Dolens" and Mr. Reed talked on "Cellular Elements of the Blood."

FRANK J. McDONOUGH,

Secretary.

NORTHWESTERN COLORADO

All but one of the members of the Northwestern Colorado Medical Society attended the regular meeting of the Society October 25 in Steamboat Springs to hear guest speakers from Denver. Many of the members traveled more than fifty miles to the meeting. Dr. Clough T. Burnett spoke on "The Failing Heart," Dr. W. T. Brinton spoke on "Sinus Disease in Childhood," and Dr. Walter W. King, President-elect of the State Society, reported a case of "Double Uterus." Following the scientific program Mr. H. T. Sethman, State Executive Secretary, led a discussion of medical economic problems.

DUANE TURNER,
Secretary.

Obituary

Chauncey E. Tennant

Dr. C. E. Tennant recently paid a visit to his daughter, Mrs. Mabel Harris, of Chehalis, Wash. He became ill with pneumonia and was promptly in a dangerous condition. Mrs. Tennant left Denver on November 14, but failed to reach her husband's bedside before his death which occurred that night.

Dr. Tennant was a prominent member of the Denver County and Colorado State Medical Societies and of the American College of Surgeons and the Western Surgical Association. He was also well known in Masonic circles.

He was born in St. Louis, Mo., in 1869, and came to Colorado in 1889. It was here that he received his medical education, and he was graduated from the local medical school in 1894.

Surviving Dr. Tennant, besides his wife and his daughter in Washington, is another daughter, Frances Tennant of Denver.

Burgett Woodcock

Dr. Woodcock was born in Mobile, Alabama, February 12, 1875, and was a graduate of the Mobile Medical College at Alabama University. He and his family moved to Greeley, Colorado, in August, 1905, where he practiced medicine and surgery until his death of coronary thrombosis on October 19, 1934.

Dr. Woodcock served as a Captain in the Medical Corps overseas during the World War, and was a charter member of Victor Candlin Post Number 18 of the American Legion of Greeley, Colorado. He was a Past President of the Weld County Medical Society, and a Past Chief of Staff of the Greeley Hospital, Greeley, Colorado. He also was a delegate to the Colorado State Medical Society in 1934, and was a member of the Committee on Scientific Program for 1934. He belonged to the Kiwanis Club, of which he was a charter member, was a Royal Arch Mason, and belonged to the Elks Club and the Knights of Pythias.

It is with deep regret that once again it becomes necessary for the Greeley Hospital Staff to place on record the finished story of another of its older members.

Dr. Woodcock has left us to assume that place in the universal sphere which has been prepared for him. A pioneer in the work of this hospital, he was here when the entire nursing staff of the institution consisted of but one member—she superintendent, day nurse, night nurse, and in active charge of the obstetrical and surgical departments. He lived through all phases of the hospital's development and fittingly closed his career as Chief of Staff.

Socially and fraternally inclined, it was his wish

to live at peace and in amity with his fellow men. In later years these qualities became more marked so that no harsh or unkind sentiment disturbed the even tenor of his way. Taken in the high tide of mental and physical activity it is a matter of thankfulness that no intervening illness, suffering, or pain interferes with the memory of his happy attitude towards life.

The Staff and the Colorado State Medical Society wish not merely to place their own loss on record, but desire to extend to Mrs. Woodcock and the family their utmost sympathy at this time, knowing that "sorrow never comes too late and happiness too swiftly flies."

Alfred E. Seebass

The Society regrets the loss of Dr. Seebass, one of its older members. He died by his own hand on November 7. The act was obviously carefully premeditated and followed upon a melancholic condition and residual consequences of a stroke some months ago.

Dr. Seebass enjoyed a large following and a splendid reputation in our profession.

Surviving are his widow, two sons, Alfred R., Jr., of Denver, and Roland of La Salle, Colorado, and a daughter, Elizabeth, who attends the University of Colorado.

John Haggart

On November 6, Dr. John Haggart, pioneer Durango physician, passed away in Denver after an extended illness. Dr. Haggart was a Canadian, was educated in Canada, and came west to Durango in 1890. Two years later he married the popular daughter of one of the section's prominent pioneer families. Three sons were born: Ned, now a prominent eastern physician; Dr. William W., well known in Denver, and John, a progressive young writer in New York. His widow also survives him. For many years he served as physician and surgeon for the American Smelting & Refining Co. in this city, in addition to his private practice.

Dr. Haggart contributed much to the success of Mercy Hospital when the institution was going through one of the most critical periods of its existence, a few years after its establishment. He was the first president of the Mercy Hospital staff when the organization was formed.

He was a loyal supporter of organizations for civic betterment, and served as mayor of the City of Durango.

At the time of his demise he was president of the San Juan Medical Association.

Charles James Howard

Dr. C. J. Howard, who formerly practiced in Colorado and Utah and had retained his good standing in the Colorado State Medical Society, passed away at his home in Boston, Mass., on October 26. He survived his father, Charles H. Howard, by only a week.

Dr. Howard was born in Holyoke in 1872. He was a graduate of Hobart College and of the College of Physicians and Surgeons of Columbia University. For the past fifteen years he had been on the staff of the U. S. Veterans Administration; for nine of these years he was surgeon at the Rutland Hospital, Rutland Heights, Mass.

He is survived by his widow, Frances Davy Howard; a brother, Professor John W. Howard of the faculty of the Institute of Technology, and two sisters, Miss Catherine E. Howard and Miss Mabel S. Howard. Dr. Howard was a member of Kappa Alpha fraternity and the American Medical Association.

List of Members of the Colorado State Medical Society

Corrected to December 1, 1934*

AGUILAR, COLORADO

Name	Address	Telephone	Society
McClelland, M. A.	Aguilar	Aguilar 6	Las Animas
Merritt, W. A.	Aguilar	Aguilar 6	Las Animas

AKRON, COLORADO

Adams, W. A.	Akron	Akron 43-J	Washington-Yuma
Crawford, M. L.	Akron	Akron 16-J	Washington-Yuma

ALAMO, COLORADO,

Whitehouse, William N.	Alamo	Walsenburg 020-J3	Huerfano
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ALAMOSA, COLORADO

Anderson, Sidney	First State Bank Building	Alamosa 311	San Luis Valley
Byrn, Howard W.	Legion Bldg.	Alamosa 627	San Luis Valley
Davies, John D.	Alamosa	Alamosa 545	San Luis Valley
Davlin, C. A.	MacDonald Bldg.	Alamosa 75	San Luis Valley
Day, R. J.	Legion Bldg.	Alamosa 627	San Luis Valley
Dorsey, C. W.	First State Bank Bldg.	Alamosa 311	San Luis Valley
Herriman, L. L.	First State Bank Building	Alamosa 46	San Luis Valley
Hurley, J. R.	Alamosa	Alamosa 27	San Luis Valley
Rupert, J. K.	Elks Bldg.	Alamosa 22	San Luis Valley
Streng, E. S.	Alamosa	Alamosa 72	San Luis Valley

ANTONITO, COLORADO

Close, W. D.	Antonito	Antonito 5	San Luis Valley
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ARRIBA, COLORADO

Keller, C. J.	Arriba	Arriba 14	Kit Carson
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ARVADA, COLORADO

Dill, R. D.	Arvada	Arvada 105	Denver
Foster, E. L.	Arvada	Arvada 24	Clear Creek Valley
McBrayer, B. E.	Arvada	Arvada 60	Denver
Thorn, T. R.	Arvada	Arvada 216	Clear Creek Valley

ASPEN, COLORADO

Twining, W. H.	Aspen	Aspen 83	Garfield
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AULT, COLORADO

Anderson, A.	Ault	Ault 58	Weld
McCain, A. C.	Ault	Ault 1-W	Weld

AURORA, COLORADO

Shipman, F. M.	Aurora	Aurora 96-J	Adams
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BERTHOUD, COLORADO

Hardesty, W. B.	Berthoud	Berthoud 48	Larimer
Howell, J. D.	Berthoud	Berthoud 55	Larimer
McCarty, D. W.	Berthoud	Berthoud 16-J3	Larimer

BONANZA, COLORADO

Kertright, S. E.	Bonanza		San Luis Valley
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BOONE, COLORADO

Berg, L. E.	Boone		Pueblo
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BOULDER, COLORADO

Alexander, Harry A.	First National Bank	Boulder 164	Boulder
Bonham, C. D.	Physicians Bldg.	Boulder 50W	Boulder
Farrington, F. H.	Mercantile Bank Bldg.	Boulder 246	Boulder
Farrington, Paul R.	Mercantile Bank Bldg.	Boulder 246	Boulder
Fischer, V. B.	Mercantile Bank Bldg.	Boulder 641W	Boulder
Gilbert, O. M.	Physicians Bldg.	Boulder 104	Boulder
Gilbert, W. M.	Physicians Bldg.	Boulder 104	Boulder

*Every effort has been made, up to the moment of going to press, to present this directory with absolute accuracy. To this end, final proof was checked with the latest information lists of the Mountain States Telephone & Telegraph Company and the U. S. Postoffice at Denver. If an error exists the Executive Office of the Society will appreciate immediate notification.

BOULDER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Gillaspie, John D.	First National Bank Bldg.	Boulder 82W	Boulder
Graf, Carl H.	Physicians Bldg.	Boulder 232	Boulder
Green, H. A.	Boulder-Colorado Sanitarium	Boulder 1800	Boulder
Hartzell, H. W.	Boulder-Colorado Sanitarium	Boulder 1800	Boulder
Heuston, H. H.	First National Bank Bldg.	Boulder 27W	Boulder
Hillyer, E. C.	Mercantile Bank Bldg.	Boulder 673	Boulder
Johnson, Margaret L.	Boulderado Hotel	Boulder 322	Boulder
Klopfenstein, Fred C.	Boulder-Colorado Sanitarium	Boulder 1800	Boulder
McCabe, F. H.	764 15th St.	Boulder 965	Boulder
Muenzinger, Florence W.	963 7th St.	Boulder 1240J	Boulder
Reed, W. K.	Physicians Bldg.	Boulder 1848W	Boulder
Rockwell, Orville	Boulder-Colorado Sanatorium	Boulder 1800	Boulder
Spencer, F. R.	Physicians Bldg.	Boulder 23	Boulder

BRIGHTON, COLORADO

Hotchkiss, W. K.	Brighton	Brighton 104W	Denver-Adams
McCann, J. C.	Brighton	Brighton 102W	Adams
Peer, W. F.	Brighton	Brighton 309	Adams
Stucki, J. C.	Brighton	Brighton 450	Adams
Wells, J. W.	Brighton	Brighton 313	Adams

BROADMOOR, COLORADO

Joy, Homer T.	Broadmoor	Main 1537	El Paso
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BRUSH, COLORADO

Eakins, C. F.	Brush	Brush 62J	Morgan
Hildebrand, P. R.	Brush	Brush 50	Morgan
Lusby, A. C.	Brush	Brush 6J	Morgan

BUENA VISTA, COLORADO

Lillienthal, Samuel	S. C. C. Camp		Denver
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BYERS, COLORADO

Lorimer, Hugh F.	Byers	Byers 13	Denver
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CALHAN, COLORADO

Chandler, Gilbert B.	Calhan	Calhan 10W	El Paso
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CANON CITY, COLORADO

Bee, Archie	417 Macon Ave.	Canon City 70	Fremont
Graves, C. H.	602 Macon Ave.	Canon City 443	Fremont
Hinshaw, J. D.	116 No. 7th St.	Canon City 142	Fremont
Holmes, R. E.	5th & Greenwood Ave.	Canon City 30	Fremont
Lynch, E. B.	Apex Bldg.	Canon City 388J	Fremont
Maxwell, J. G.	Apex Bldg.	Canon City 34J	Fremont
Shoun, D. A.	Apex Bldg.	Canon City 475	Fremont
Shoun, J. G.	Apex Bldg.	Canon City 475	Fremont
Webb, E. C.	Apex Bldg.	Canon City 102	Fremont
Wyatt, Kon	Postoffice Bldg.	Canon City 286J	Fremont

CARBONDALE, COLORADO

Tubbs, W. R.	Carbondale	Carbondale 35	Garfield
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CASTLE ROCK, COLORADO

Palmer, W. A.	Castle Rock	Castle Rock 27J	Denver
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CEDAREDGE, COLORADO

Aust, T. H.	Cedaredge	Cedaredge	Delta
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CENTER, COLORADO

Carmichael, E. K.	Center	Center 4W	San Luis Valley
Greenfield, Lewis J.	Center	Center 7W	San Luis Valley

CHANDLER, COLORADO

Goodwin, Aurel	Chandler	Chandler 15R3	Fremont
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CHERAW, COLORADO

Pitney, Orville	Cheraw	Cheraw 37-F3	Otero
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CHEYENNE WELLS, COLORADO

Myers, L. N.	Cheyenne Wells	Cheyenne Wells 103	Garfield
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CLIMAX, COLORADO

Retallack, L. L.	Climax	Climax 1	Lake
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COKEDALE, COLORADO

Name	Address	Telephone	Society
Horsky, Brooke	Cokedale	Cokedale 700-R5	Las Animas

COLLBRAN, COLORADO

Watson, W. V.	Collbran	Collbran 15-J4	Mesa
Zeigle, Henry H.	Collbran	Collbran 41	Mesa
Zinke, Wm.	Collbran	Collbran 31	Mesa

COLORADO SPRINGS, COLORADO

Allen, L. R.	Ferguson Bldg.	Main 1820	El Paso
Baker, Fred R.	18 Independence Bldg.	Main 4477	El Paso
Bancroft, G. W.	Ferguson Bldg.	Main 2259	El Paso
Beeson, H. B.	Ferguson Bldg.	Main 1391	El Paso
Boisevain, C. H.	Colorado College	Main 5480	El Paso
Bortree, L. W.	Ferguson Bldg.	Main 3181	El Paso
Boyd, G. A.	Exchange National Bank Bldg.	Main 803	El Paso
Brady, E. J.	Colorado Springs Psychopathic Hospital	Main 3703	El Paso
Brobeck, V. H.	Ferguson Bldg.	Main 126	El Paso
Brown, J. H.	Burns Bldg.	Main 45	El Paso
Brown, L. G.	707 No. Cascade Ave.	Main 1999	El Paso
Bryan, H. C.	462 First National Bank Bldg.	Main 1075	El Paso
Campbell, William A.	Exchange National Bank Bldg.	Main 104	El Paso
Chapman, S. J.	Burns Bldg.	Main 781	El Paso
Coghlan, J. T.	204 First National Bank Bldg.	Main 1434	El Paso
Corlett, T. G.	First National Bank Bldg.	Main 753	El Paso
Crouch, J. B.	Ferguson Bldg.	Main 4160	El Paso
Cunning, J. E.	Burns Bldg.	Main 444	El Paso
Draper, Paul A.	316 Ferguson Bldg.		El Paso
Drea, W. F.	Burns Bldg.	Main 961	El Paso
Dworak, F. E.	327 Burns Bldg.	Main 691	El Paso
Evans, T. J.	Crestone Heights Sanitarium	Main 687	El Paso
Faust, F. A.	819 N. Nevada Ave.	Main 407	El Paso
Forster, A. M.	Cragmor Sanatorium	Main 122	El Paso
Fountain, A. S.	2901 W. Colorado Ave.	Main 5664	El Paso
Giese, C. O.	316 Ferguson Bldg.	Main 4160	El Paso
Gilbert, George B.	402 Burns Bldg.	Main 1212	El Paso
Gillett, O. R.	Independence Bldg.	Main 23	El Paso
Gilmore, George B.	Independence Bldg.	Main 23	El Paso
Good, B. D.	Cragmor Sanitarium	Main 122	El Paso
Goodson, H. C.	Exchange National Bank Bldg.	Main 150	El Paso
Gydesen, Carl S.	Ferguson Bldg.	Main 3712	El Paso
Haney, J. R.	First National Bank Bldg.	Main 473	El Paso
Hanford, Peter O.	720 No. Nevada Ave.	Main 1151	El Paso
Hartwell, John B.	Burns Bldg.	Main 218	El Paso
Hereford, John H.	Burns Bldg.	Main 57	El Paso
Hill, Lawrence H.	Burns Bldg.	Main 4559	El Paso
Hills, W. K.	Ferguson Bldg.	Main 665	El Paso
Howell, W. C.	First National Bank Bldg.	Main 669	El Paso
Kettlekamp, Fred O.	Ferguson Bldg.	Main 267	El Paso
Knowles, Tom R.	Mining Exchange Bldg.	Main 78	El Paso
Lamberson, W. H.	First National Bank Bldg.	Main 1360	El Paso
Lennox, P. M.	Burns Bldg.	Main 1039	El Paso
Liddle, E. B.	Burns Bldg.	Main 392	El Paso
Loomis, P. A.	Ferguson Bldg.	Main 4160	El Paso
Mahoney, J. J.	First National Bank Bldg.	Main 305	El Paso
Marbourg, E. M.	212 Burns Bldg.	Main 472	El Paso
McClanahan, Z. H.	Exchange National Bank Bldg.	Main 150	El Paso
McConnell, J. F.	Ferguson Bldg.	Main 4160	El Paso
McCorkle, H. B.	First National Bank Bldg.	Main 1075	El Paso
McCrossin, W. P., Jr.	Burns Bldg.	Main 444	El Paso
McIntyre, T. A.	First National Bank Bldg.	Main 753	El Paso
Miller, L. A.	Exchange National Bank Bldg.	Main 2898	El Paso
Morrison, C. S.	2514 W. Colorado Ave.	Main 965	El Paso
Mullett, A. M.	2006 Ridgeway	Main 184	El Paso
Murphey, Bradford J.	104 E. Rio Grande St.	Main 4005	El Paso
Neeper, E. R.	Exchange National Bank Bldg.	Main 1	El Paso
Owens, R. L.	Independence Bldg.	Main 326	El Paso
Powell, H. M.	64 Independence Bldg.	Main 4547	El Paso
Richmond, C. E.	222 E. Dale St.	Main 821	El Paso
Rothrock, F. B.	Independence Bldg.	Main 326	El Paso
Ryder, Charles T.	Burns Bldg.	Main 4626	El Paso
Schaefer, S. W.	112 Exchange National Bank Bldg.	Main 242	El Paso
Service, W. C.	402 Burns Bldg.	Main 1212	El Paso

COLORADO SPRINGS (Continued)

Name	Address	Telephone	Society
Sevier, J. A.	Burns Bldg.	Main 1212	El Paso
Shivers, G. C.	464 First National Bank Bldg.	Main 305	El Paso
Shivers, M. O.	First National Bank Bldg.	Main 305	El Paso
Smith, W. A.	Ferguson Bldg.	Main 3711	El Paso
Staines, Minnie E.	Burns Bldg.	Main 724	El Paso
Stine, George H.	Burns Bldg.	Main 5090	El Paso
Stough, C. F.	Ferguson Bldg.	Main 4160	El Paso
Thomson, W. J.	410 Exchange National Bank Bldg.	Main 1788	El Paso
Timmons, E. L.	712 Exchange National Bank Bldg.	Main 193	El Paso
Tucker, Beverly	1130 No. Nevada Ave.	Main 1166	El Paso
Vanderhoof, D. A.	Exchange National Bank Bldg.	Main 77	El Paso
Webb, G. B.	402 Burns Bldg.	Main 1212	El Paso
Williams, Judson T.	Ferguson Bldg.	Main 3711	El Paso
Winternitz, David H.	Burns Bldg.	Main 4559	El Paso
Woodward, Harry W.	Ferguson Bldg.	Main 4160	El Paso

CORTEZ, COLORADO

Johnson, E. E.	Cortez	Cortez 8	San Juan
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CRAIG, COLORADO

Bailey, B. M.	Craig	Craig 26	Northwestern
Cook, D. M.	Craig	Craig 148W	Northwestern
Smith, A. E.	Box 306, Craig	Craig 38	Denver

CREEDE, COLORADO

McKibbin, Samuel	Creede	Creede 24W	San Luis Valley
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CRESTED BUTTE, COLORADO

Alford, J. S.	Crested Butte	Crested Butte 10J	Denver
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CRIPPLE CREEK, COLORADO

Hassenplug, W. F.	Cripple Creek	Cripple Creek 132	El Paso
Logan, R. W.	P. O. Box 53	Cripple Creek 965	El Paso

DEERTRAIL, COLORADO

Webb, M. L.	Deertrail	Deertrail 41	Arapahoe
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DELAGUA, COLORADO

Jackson, Eugene	Delagua	Trinidad 041R2	Las Animas
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DEL NORTE, COLORADO

Gjellum, A. B.	Del Norte	Del Norte 30	San Luis Valley
Weiler, R. B.	Del Norte	Del Norte 5	San Luis Valley

DELTA, COLORADO

Bast, L.	Colorado Bank & Trust Co. Bldg.	Delta 295	Delta
Burgin, C. H.	358 Main St.	Delta 37W	Delta
Cleland, W. S.	Delta	Delta 63J	Delta
Day, W. A.	Colorado Bank & Trust Co. Bldg.	Delta 294	Delta
Erich, A. F.	Hillman Bldg.	Delta 40	Delta
Hick, Lawrence A.	Colorado Bank & Trust Co. Bldg.	Delta 293	Delta
Hick, L. L.	Colorado Bank & Trust Co. Bldg.	Delta 293	Delta
McClanahan, A. C.	Delta	Delta 73-J1	Delta
Miller, A. E.	Delta	Res. Delta 242W	Delta
Phillips, Edward R.	Hillman Bldg.	Delta 209W	Delta
Shaffer, E. G.	Hillman Bldg.	Delta 72W	Delta

DENVER, COLORADO

Albi, Rudolph	309 American Bank Bldg.	Keystone 7703	Denver
Allen, Kenneth D. A.	452 Metropolitan Bldg.	Tabor 4208	Denver
Allen, Phillip C. C.	224 Republic Bldg.	Main 2235	Denver
Allen, R. S.	25 E. Iowa Ave.	Pearl 0211	Denver
Altieri, J. A.	4057 Tejon St.	Gallup 6854	Denver
Ambler, J. V.	646 Metropolitan Building	Keystone 6431	Denver
Amesse, J. W.	624 Metropolitan Bldg.	Tabor 0181	Denver
Anderson, C. W.	224 Republic Bldg.	Main 2235	Denver
Apperson, E. L.	1035 Republic Bldg.	Tabor 6956	Denver
Argall, A. J.	920 Metropolitan Bldg.	Keystone 5304	Denver
Arndt, R. W.	100 Metropolitan Bldg.	Main 4187	Denver
Arneill, James Rae	100 Metropolitan Bldg.	Main 4187	Denver
Arneill, James Rae, Jr.	100 Metropolitan Bldg.	Main 4187	Denver
Ashley, G. H.	432 Republic Bldg.	Tabor 8044	Denver
Atcheson, George	405 Tabor Bldg.	Main 1776	Denver
Attwood, A. De Forest	4635 W. 38th Ave.	Gallup 0127	Denver

DENVER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Bagot, W. S.	500 17th St.	Tabor 3221	Denver
Bane, W. M.	1005 Republic Bldg.	Keystone 5731	Denver
Barber, W. W.	624 Metropolitan Bldg.	Tabor 0181	Denver
Barnard, H. I.	1707 E. 18th Ave.	York 7720	Denver
Barney, J. Murray	234 Mack Bldg.	Tabor 2541	Denver
Baskin, M. J.	425 Republic Bldg.	Keystone 5913	Denver
Bassow, S. H.	703 Republic Bldg.	Keystone 7907	Denver
Battock, Benjamin H.	831 Republic Bldg.	Tabor 6309	Denver
Baum, Harry L.	510 Republic Bldg.	Tabor 2954	Denver
Beaghtler, Amos L.	414 14th St.	Tabor 7151	Denver
Beall, W. C.	3525 W. 49th Ave.	Gallup 1438	Denver
Beers, Ida V.	940 Metropolitan Bldg.	Keystone 2661	Denver
Beggs, W. N.	1403 Delaware St.	Main 2540	Denver
Bell, C. C.	309 Republic Bldg.	Tabor 4353	Denver
Best, T. E.	718 Mack Bldg.	Main 3457	Denver
Beyer, T. E.	418 Majestic Bldg.	Tabor 3800	Denver
Bigelow, May T.	15 Pearl St.	Spruce 2573	Denver
Black, Melville	424 Metropolitan Bldg.	Keystone 5617	Denver
Black, Mervin H.	3800 E. Colfax	York 5410	Denver
Black, W. C., Jr.	4200 E. 9th Ave.	York 8500	Denver
Blanchard, W. E.	601 Republic Bldg.	Main 3609	Denver
Blank, Henry	1218 Republic Bldg.	Main 4798	Denver
Blickensderfer, G. M.	544 Franklin St.	York 2862	Denver
Blosser, John R.	1153 Welton St.	Main 3445	Denver
Bluemel, C. S.	550 Metropolitan Bldg.	Tabor 4078	Denver
Bonsteel, A. E.	520 Metropolitan Bldg.	Keystone 6011	Denver
Bouslog, J. S.	246 Metropolitan Bldg.	Tabor 3037	Denver
Bowers, Abern E.	1023 Republic Bldg.	Tabor 8800	Denver
Bramley, J. R.	423 Majestic Bldg.	Main 5746	Denver
Brandenburg, H. P.	155 Metropolitan Bldg.	Keystone 0523	Denver
Brandon, E. Agnes	829 Majestic Bldg.	Keystone 3800	Denver
Brinton, W. T.	406 Republic Bldg.	Keystone 8231	Denver
Brown, Harry C.	330 Republic Bldg.	Tabor 1053	Denver
Brown, L. T.	734 Republic Bldg.	Keystone 3629	Denver
Brown, M. D.	821 Republic Bldg.	Main 2889	Denver
Buck, G. R.	315 Republic Bldg.	Cherry 2022	Denver
Bundsen, C. A.	738 Metropolitan Bldg.	Tabor 2265	Denver
Burnett, C. T.	550 Metropolitan Bldg.	Tabor 5428	Denver
Burns, T. Mitchell	830 Metropolitan Bldg.	Main 3508	Denver
Bush, C. E.	30 E. Dakota St.	Spruce 0016	Denver
Bushell, C. E.	312 Seventeenth St.	Keystone 0474	Denver
Butman, W. W.	833 Majestic Bldg.	Keystone 7823	Denver
Butterfield, O. J.	110 Metropolitan Bldg.	Main 4133	Denver
Carmody, T. E.	806 Metropolitan Bldg.	Keystone 5464	Denver
Carpenter, F. H.	1218 Republic Bldg.	Main 4798	Denver
Carson, P. C.	6119 Montview Blvd.	Franklin 5559	Denver
Cattermole, George S.	301 Majestic Bldg.	Tabor 1762	Denver
Catterson, A. D.	654 Metropolitan Bldg.	Keystone 8408	Denver
Cecchini, A. S.	100 Metropolitan Bldg.	Main 4187	Denver
Chambers, Karl	812 Republic Bldg.	Tabor 0620	Denver
Chaney, W. C.	522 Garfield	Franklin 5065	Denver
Charles, R. L.	564 Metropolitan Bldg.	Keystone 7023	Denver
Chase, J. S.	821 Republic Bldg.	Main 5284	Denver
Cheley, G. E.	203 Metropolitan Bldg.	Main 4002	Denver
Childs, S. B.	366 Metropolitan Bldg.	Tabor 5141	Denver
Chisholm, A. J.	232 Metropolitan Bldg.	Tabor 0477	Denver
Chouke, K. S.	4200 E. 9th Ave.	York 8500	Denver
Clark, Dumont	330 Republic Bldg.	Tabor 4648	Denver
Cleere, Roy L.	1134 Republic Building	Keystone 2522	Denver
Coakley, H. E.	1001 Republic Bldg.	Keystone 1480	Denver
Cobianchi, P. L.	303 Mack Bldg.	Main 1901	Denver
Cohen, Haskell M.	709 Republic Bldg.	Main 5820	Denver
Coleman, Oscar E.	307 Majestic Bldg.	Keystone 7020	Denver
Collins, E. W.	508 Majestic Bldg.	Main 2555	Denver
Connell, J. E. A.	764 Metropolitan Bldg.	Keystone 5784	Denver
Connor, P. J.	1123 Republic Bldg.	Tabor 2341	Denver
Conway, L. A.	1024 Republic Bldg.	Keystone 3665	Denver
Cooper, C. E.	652 Metropolitan Bldg.	Main 2922	Denver
Cooper, Clyde J.	226 Metropolitan Bldg.	Tabor 0094	Denver
Cooper, H. L.	412 Republic Bldg.	Keystone 5838	Denver
Cooper, Henry S.	610 Metropolitan Bldg.	Tabor 2857	Denver
Cooper, Horace S.	234 Mack Bldg.	Tabor 2541	Denver
Cooper, K. G.	652 Metropolitan Bldg.	Main 2922	Denver
Corper, H. J.	3800 E. Colfax Ave.	York 5410	Denver

DENVER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Cotton, G. K.	418 Republic Bldg.	Keystone 5289	Denver
Craig, Alexander C.	122 E. 16th Ave.	Keystone 2429	Denver
Crisp, W. H.	530 Metropolitan Bldg.	Tabor 3719	Denver
Crosby, L. G.	366 Metropolitan Bldg.	Tabor 5141	Denver
Cunningham, T. D.	932 Republic Bldg.	Main 3470	Denver
Currian, Martin D.	610 Metropolitan Bldg.	Tabor 2857	Denver
Curtis, H. B.	211 Cooper Bldg.	Main 5463	Denver
Damcrow, A. P.	3800 E. Colfax Ave.	York 5410	Denver
Daniels, L. E.	924 Republic Bldg.	Keystone 5037	Denver
Danielson, Ralph W.	258 Metropolitan Bldg.	Main 2332	Denver
Darley, Ward	518 Majestic Bldg.	Tabor 0914	Denver
Darrow, C. H.	110 Metropolitan Bldg.	Main 4133	Denver
Davis, Jefferson C. W.	3805 Lowell Blvd.	Gallup 2591	Denver
Davis, J. B.	664 Metropolitan Bldg.	Keystone 6061	Denver
Davis, L. L.	215 Railway Exchange Bldg.	Tabor 2475	Denver
Daywitt, A. L.	3026 W. 50th Ave.		Pueblo
Dean, E. F.	506 Metropolitan Bldg.	Main 5609	Denver
Delehanty, E. J.	235 Majestic Bldg.	Keystone 2916	Denver
Delehanty, E. S.	235 Majestic Bldg.	Keystone 2916	Denver
Denman, A. C.	717 Republic Bldg.	Main 2331	Denver
Dennis, W. S.	412 Republic Bldg.	Keystone 1555	Denver
Dickman, P. A.	212 Republic Bldg.	Tabor 3000	Denver
Dickson, Logan M.	1565 Pearl St.	Keystone 9525	Denver
Dickson, R. W.	915 Republic Bldg.	Tabor 8311	Denver
Diemer, F. E.	813 Republic Bldg.	Keystone 1073	Denver
Dixon, Robert K.	1104 Republic Bldg.	Keystone 8898	Denver
Dobos, E. I.	St. Joseph's Hospital	Main 6121	Denver
Dorsey, G. H.	946 Metropolitan Bldg.	Main 2232	Denver
Doty, D. A.	738 Metropolitan Bldg.	Tabor 2265	Denver
Douglass, A. L.	306 Mack Bldg.	Tabor 3444	Denver
Downing, E. D.	2636 Albion Street	York 7988-M	El Paso
Drever, J. Henry	309 Mack Bldg.	Keystone 5445	Denver
Drinkwater, R. L.	804 Republic Bldg.	Tabor 7066	Denver
Dumm, B. I.	415 Majestic Bldg.	Main 0424	Denver
Durbin, Edgar	550 Metropolitan Bldg.	Tabor 5428	Denver
Dwyer, Paul K.	830 Metropolitan Bldg.	Main 3508	San Luis Valley
Earley, A. H.	1204 Republic Bldg.	Keystone 0680	Denver
Eastlake, A. C.	816 Republic Bldg.	Main 5761	Denver
Ebaugh, Franklin G.	4200 E. 9th Ave.	York 8500	Denver
Edwards, G. M.	732 Republic Bldg.	Tabor 0013	Denver
Ehrenburg, G. E.	J. C. R. S.	Keystone 3161	Denver
Elliot, H. R.	330 Metropolitan Bldg.	Tabor 4802	Denver
Elrick, Leroy	816 Republic Bldg.	Keystone 7411	Denver
Enos, Clinton	826 Majestic Bldg.	Main 1633	Denver
Esserman, A. L.	1035 Republic Bldg.	Tabor 0052	Denver
Evans, F. J.	414 Mack Bldg.	Tabor 7538	Denver
Evans, John R.	620 Republic Bldg.	Tabor 8531	Denver
Eyerley, T. L.	3727 Wolfe St.	Gallup 7310-W	Huerfano
Faber, E. G.	224 Republic Bldg.	Main 2235	Denver
Faust, L. S.	1104 Republic Bldg.	Keystone 8898	Denver
Filmer, B. A.	1331 S. Marion	Pearl 8486	Denver
Finney, H. S.	1236 Republic Bldg.	Tabor 0626	Denver
Fisher, C. D.	633 Mack Bldg.	Keystone 0878	Denver
Forbes, Roy P.	1850 Gilpin St.	Franklin 4772	Denver
Foster, John M.	738 Metropolitan Bldg.	Tabor 2248	Denver
Foster, J. M., Jr.	504 Republic Bldg.	Keystone 0294	Denver
Fowler, H. L.	425 Mack Bldg.	Tabor 3063	Denver
Fowler, O. S.	302 Metropolitan Bldg.	Tabor 3663	Denver
Frank, L. W.	610 Republic Bldg.	Main 5853	Denver
Fraser, R. W.	536 Majestic Bldg.	Keystone 0846	Denver
Freeland, H. J.	1032 Republic Bldg.	Tabor 4562	Denver
Freeman, Leonard	424 Metropolitan Bldg.	Keystone 5617	Denver
Freeman, Leonard, Jr.	424 Metropolitan Bldg.	Keystone 5617	Denver
Freshman, A. W.	234 Metropolitan Bldg.	Main 2954	Denver
Friedland, Jos. D.	1019 Republic Bldg.	Tabor 0935	Denver
Friedman, Emanuel	326 Republic Bldg.	Main 1943	Denver
Friedman, H. L.	724 Republic Bldg.	Cherry 1311	Denver
Friesch, Wenzel	625 Republic Bldg.	Main 6829	Denver
Frumess, G. M.	332 Republic Bldg.	Main 6777	Denver
Gale, M. J.	737 Republic Bldg.	Tabor 2672	Denver
Gallagher, T. J.	605 California Bldg.	Keystone 0628	Denver
Gauss, Harry	535 Republic Bldg.	Tabor 5723	Denver
Gelien, Johanna	1480 High St.	Franklin 6124	Denver
Gengenbach, F. P.	1850 Gilpin St.	Franklin 4772	Denver

DENVER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
George, McLeod M.	Bethesda Sanitarium	Pearl 5033	Denver
Gillen, G. H.	1337 Gaylord St.	York 3716	Denver
Ginsburg, M. M.	624 Metropolitan Bldg.	Tabor 0181	Denver
Glenn, G. A.	4200 Tejon St.	Gallup 4500	Denver
Goldhammer, Samuel S.	615 Republic Bldg.	Main 4695	Denver
Gordon, R. W.	999 So. Broadway	Keystone 3311	Denver
Gettesfeld, M. R.	1024 Republic Bldg.	Keystone 6084	Denver
Graham, D. A.	323 Mack Bldg.	Main 0614	Denver
Graham, E. V.	1205 Republic Bldg.	Tabor 2456	Denver
Greene, L. W.	1237 Republic Bldg.	Keystone 8600	Denver
Greig, William M.	415 Majestic Bldg.	Main 0424	Denver
Guthrie, A. B.	823 Majestic Bldg.	Tabor 1631	Denver
Guthrie, E. C.	404 Steele Bldg.	Keystone 5661	Denver
Gwinn, Lawrence M.	1005 So. Gaylord St.	Spruce 1249	Denver
Haggart, William W.	1003 Republic Bldg.	Tabor 1418	Denver
Hall, J. N.	730 Metropolitan Bldg.	Keystone 6650	Denver
Halley, William H.	220 Metropolitan Bldg.	Tabor 6715	Denver
Halsted, F. S.	738 Metropolitan Bldg.	Tabor 2248	Denver
Hansen, F. P.	506 Mack Bldg.	Tabor 5915	Denver
Hargreaves, O. C.	3700 W. 32nd Ave.	Gallup 2210	Denver
Harrington, John F.	1227 Republic Bldg.	Main 4449	Denver
Hartendorp, Paulus V. H.	500 Broadway National Bank Bldg.	Spruce 4142	Denver
Hartley, J. E.	1224 Republic Bldg.	Tabor 1224	Denver
Harvey, E. L.	632 Republic Bldg.	Tabor 5366	Denver
Harvey, H. G., Jr.	632 Republic Bldg.	Tabor 5366	Denver
Hazlett, J. D.	604 Republic Bldg.	Keystone 0108	Denver
Hegner, C. F.	920 Metropolitan Bldg.	Keystone 7913	Denver
Henderson, H. B.	509 Republic Bldg.	Main 5191	Denver
Hepp, G. B.	332 Mack Bldg.	Keystone 0677	Denver
Hepp, Louis C.	521 Mack Bldg.	Keystone 1020	Denver
Heusinkveld, Gerrit	620 Republic Bldg.	Tabor 8531	Denver
Hickey, H. L.	934 Republic Bldg.	Keystone 1742	Denver
Higbee, D. R.	1117 Republic Bldg.	Tabor 3797	Denver
Hill, K. A.	632 Metropolitan Bldg.	Main 2340	Denver
Hillkowitz, Philip	236 Metropolitan Bldg.	Main 2954	Denver
Hilton, Jack Palmer	Mount Airy Sanitarium	York 0849	Denver
Hinton, C. B.	104 Broadway	Spruce 0995	Denver
Hix, I. E.	1138 Republic Bldg.	Keystone 8421	Denver
Holt, Frank	1010 Republic Bldg.	Main 1486	Denver
Hopkins, H. J.	3211 Lowell Blvd.	Gallup 7360	Denver
Hopkins, J. R.	707 Republic Bldg.	Main 2755	Denver
Hopkins, T. M.	520 Metropolitan Bldg.	Tabor 2553	Denver
Howard, J. F.	2400 Gaylord St.	Franklin 1801-W	Denver
Howard, T. Leon	1224 Republic Bldg.	Tabor 1224	Denver
Hoyt, R. W.	404 Republic Bldg.	Keystone 5517	Denver
Hudston, Ranulph	1203 Republic Bldg.	Main 1381	Denver
Hutchison, James E.	216 Republic Bldg.	Keystone 1624	Denver
Hutton, J. G.	506 Republic Bldg.	Tabor 5625	Denver
Imbro, Eva Arbini	4656 Gilpin Street	Tabor 5591	Denver
Inglis, John	837 Republic Bldg.	Main 5524	Denver
Ingraham, C. B.	509 Republic Bldg.	Main 5191	Denver
Irwin, R. S.	714 Republic Bldg.	Main 5515	Denver
Jackson, Edward	1008 Republic Bldg.	Keystone 7517	Denver
Jaeger, J. R.	632 Republic Bldg.	Tabor 5366	Denver
Jaffa, B. B.	558 Metropolitan Bldg.	Tabor 1511	Denver
Jelstrup, Gunnar	1019 Republic Bldg.	Keystone 0409	Denver
Jeurink, John	1620 So. Pearl St.	Spruce 6058	Denver
Jeurink, V. G.	527 Republic Bldg.	Main 3938	Denver
Jobe, M. C.	606 Metropolitan Bldg.	Main 4543	Denver
John, G. H.	560 Metropolitan Bldg.	Keystone 7023	Denver
Jones, V. H.	322 Republic Bldg.	Tabor 4041	Denver
Jones, Wiley	314 Majestic Bldg.	Keystone 2601	Denver
Katzman, Maurice	402 Republic Bldg.	Keystone 0411	Denver
Kemper, C. F.	706 Metropolitan Bldg.	Main 3661	Denver
Kennedy, A. L.	835 Gaylord St.	York 7033	Denver
Kenney, F. W.	Capitol Life Bldg.	Keystone 2211	Denver
Kent, G. B.	516 Republic Bldg.	Main 2646	Denver
Kestle, C. W.	122 E. 16th Avenue	Keystone 2429	Denver
King, W. W.	738 Metropolitan Bldg.	Tabor 2265	Denver
Kinney, J. E.	606 Metropolitan Bldg.	Keystone 0473	Denver
Knoch, N. H.	523 Majestic Bldg.	Keystone 3431	Denver
Kracaw, A. R.	735 Monroe St.	Keystone 1003	Denver
Kretschmer, O. S.	306 Republic Bldg.	Keystone 8563	Denver

DENVER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Krohn, Morris J.	406 Central Savings Bank Bldg.	Keystone 8517	Denver
Krueger, E. H.	2736 Vine St.	Cherry 0101	Denver
Kruse, May B.	945 Washington St.	Keystone 3006	Denver
Kunitoma, N.	830 18th St.	Tabor 1983	Denver
Laff, Herman I.	406 Metropolitan Bldg.	Keystone 1908	Denver
Lamberton, R. F.	314 Mack Bldg.	Keystone 2548	Denver
Lannon, A. R.	632 Republic Bldg.	Tabor 5366	Denver
Lawrence, David H.	1109 Republic Bldg.	Keystone 5659	Denver
Lee, G. H.	330 Metropolitan Bldg.	Keystone 4323	Denver
Lee, L. W.	732 Republic Bldg.	Tabor 7816	Denver
LeFevre, H. W., Jr.	816 Republic Bldg.	Keystone 7411	Denver
LeRossignol, W. J.	686 So. Pearl St.	Pearl 0933	Denver
Levin, O. S.	300 United Securities Building	Franklin 2715	Denver
Levy, Maurice	709 Republic Bldg.	Main 0633	Denver
Levy, Robert	406 Metropolitan Bldg.	Keystone 1908	Denver
Lewis, George B.	856 Metropolitan Bldg.	Tabor 5788	Denver
Lewis, Robert	230 Majestic Bldg.	Tabor 3890	Denver
Lewis, W. B.	3268 W. 32nd Ave.	Gallup 0224	Denver
Leyda, J. H.	956 Metropolitan Bldg.	Keystone 3768	Denver
Lincoln, C. L.	301 Majestic Bldg.	Tabor 1762	Denver
Lingenfelter, G. P.	646 Metropolitan Bldg.	Keystone 6431	Denver
Lipscomb, John M.	1224 Republic Bldg.	Tabor 1224	Denver
Lof, A. J. O.	836 Metropolitan Bldg.	Keystone 4000	Denver
Long, Margaret	940 Metropolitan Bldg.	Keystone 2661	Denver
Lorber, M. B.	636 Republic Bldg.	Keystone 0343	Denver
Love, T. R.	302 Metropolitan Bldg.	Keystone 0335	Denver
Lowen, C. J.	717 Republic Bldg.	Main 2331	Denver
Lowther, R. R.	945 Washington St.	Cherry 0013	Denver
Lubeley, L. F.	1227 Republic Bldg.	Main 4449	Denver
Macomber, D. W.	532 Republic Bldg.	Main 2046	Denver
Macomber, H. G.	1415 Welton St.	Keystone 7733	Denver
Maier, Frank Julian	1123 Republic Bldg.	Tabor 2341	Denver
Main, George C.	227 Mack Bldg.	Keystone 5341	Denver
Manns, Rudolph	722 Republic Bldg.	Keystone 7001	Denver
Marcove, M. E.	526 Republic Bldg.	Main 5416	Denver
Markel, Casper	631 Majestic Bldg.	Main 4942	Denver
Markley, A. J.	432 Metropolitan Bldg.	Keystone 2829	Denver
Mason, Lyman W.	1011 Republic Bldg.	Main 2344	Denver
Maul, H. G.	227 Mack Bldg.	Keystone 5341	Denver
Maul, R. F.	227 Mack Bldg.	Keystone 5341	Denver
Maytum, Helen E.	632 Republic Bldg.	Tabor 5366	Denver
McCaw, John A.	418 Majestic Bldg.	Tabor 3800	Denver
McDonald, R. J.	626 Republic Bldg.	Tabor 7747	Denver
McGraw, H. R.	416 Metropolitan Bldg.	Keystone 3934	Denver
McKeen, H. R.	532 Republic Bldg.	Keystone 7610	Denver
McKelvey, S. R.	State Office Bldg.	Keystone 1171	Denver
McKeown, E. E.	406 Republic Bldg.	Keystone 8231	Denver
McLauthlin, C. A.	532 Republic Bldg.	Tabor 1067	Denver
McNaught, F. H.	619 Majestic Bldg.	Keystone 2921	Denver
Meador, C. N.	518 Majestic Bldg.	Tabor 0914	Denver
Mendenhall, John C.	932 Republic Bldg.	Main 3470	Denver
Metcalf, A. W., Jr.	820 Metropolitan Bldg.	Keystone 3124	Denver
Metz, C. W.	1134 Republic Bldg.	Keystone 2522	Denver
Miel, G. W.	420 E. Colfax Ave.	Keystone 0420	Denver
Miller, A. H.	340 Metropolitan Bldg.	Tabor 2803	Denver
Miller, Eli A.	266 Metropolitan Bldg.	Tabor 4289	Denver
Miller, L. I.	266 Metropolitan Bldg.	Tabor 4289	Denver
Miller, Simon I.	1024 Republic Bldg.	Tabor 8614	Denver
Mills, F. McConnell	1900 Dahlia St.	Franklin 1265	Denver
Minnig, Arnold	640 Metropolitan Bldg.	Keystone 1571	Denver
Mitchell, W. C.	430 State Office Bldg.	Keystone 1171	Denver
Mogan, W. E.	423 Republic Bldg.	Main 1847	Denver
Monaghan, D. G.	535 Majestic Bldg.	Main 0706	Denver
Monson, G. L.	821 Republic Bldg.	Tabor C825	Denver
Moon, A. L.	2525 So. Downing St.	Pearl 3721	Denver
Morian, C. H.	332 Mack Bldg.	Tabor 2473	Denver
Morrison, R. G.	1103 Republic Bldg.	Main 3747	Denver
Mudd, W. C.	214 Majestic Bldg.	Keystone 3623	Denver
Mugrage, E. R.	4200 E. 9th Ave.	York 8500	Denver
Mumey, Nolie	1133 Republic Bldg.	Keystone 3600	Denver
Murphy, Rex L.	110 Metropolitan Bldg.	Main 4133	Denver
Nelson, Eli	830 Metropolitan Bldg.	Main 3508	Denver
Nelson, William	911 Cook St.	York 7261	Denver
Ness, R. J.	354 Metropolitan Bldg.	Keystone 4472	Denver

DENVER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Netherton, George F.	821 Republic Bldg.	Tabor 0008	Denver
Newcomer, Elizabeth H.	306 Republic Bldg.	Keystone 8563	Denver
Newcomer, N. B.	306 Republic Bldg.	Keystone 8563	Denver
Newman, Samuel P.	1707 E. 18th Ave.	York 7720	Denver
Newsom, H. G.	227 Mack Bldg.	Keystone 5341	Denver
Ohmart, W. A.	1214 Republic Bldg.	Main 6941	Denver
Olmsted, G. K.	505 Republic Bldg.	Main 3014	Denver
O'Rourke, D. H.	1120 Republic Bldg.	Keystone 8315	Denver
Orsborn, G. E.	428 Majestic Bldg.	Main 0971	Denver
Packard, George B.	764 Metropolitan Bldg.	Keystone 5784	Denver
Packard, Robert G.	1707 E. 18th Ave.	York 7720	Denver
Pate, C. E.	520 Metropolitan Bldg.	Keystone 1839	Denver
Pattee, George L.	612 Republic Bldg.	Main 7069	Denver
Perkins, C. C.	907 Republic Bldg.	Keystone 6712	Denver
Perkins, Earl J.	958 Metropolitan Bldg.	Keystone 4637	Denver
Perrin, J. B.	730 Metropolitan Bldg.	Keystone 8083	Denver
Perrott, E. W.	1024 Republic Bldg.	Keystone 6084	Denver
Perry, R. B.	637 Republic Bldg.	Keystone 0343	Denver
Peters, David B.	U. S. Navy Recruiting Station	Keystone 4151	Denver
Phillips, Samuel Grover	529 Majestic Bldg.	Main 0458	Denver
Philpott, Ivan W.	920 Metropolitan Bldg.	Keystone 5304	Denver
Philpott, J. A.	202 Metropolitan Bldg.	Tabor 2985	Denver
Philpott, O. S.	432 Metropolitan Bldg.	Keystone 2829	Denver
Plaughner, Lee Roy	824 Majestic Bldg.	Main 6488	Denver
Pollard, J. W.	1217 Republic Bldg.	Main 3801	Denver
Pollock, C. R.	704 Republic Bldg.	Tabor 7516	Denver
Porter, W. C.	1120 Republic Bldg.	Tabor 8610	Denver
Postma, George S.	1590 So. Pearl St.	Spruce 3044	Denver
Pothuisje, P. J.	638 Majestic Bldg.	Main 3539	Denver
Potter, S. B.	220 Republic Bldg.	Tabor 6525	Denver
Powell, Cuthbert	1578 Humboldt St.	Tabor 3234	Denver
Pratt, E. S.	737 Republic Bldg.	Tabor 2672	Denver
Prey, Duval	504 Republic Bldg.	Keystone 0294	Denver
Price, Craig	100 Metropolitan Bldg.	Main 4187	Denver
Prinzing, J. F.	717 Republic Bldg.	Keystone 5713	Denver
Purcell, J. W.	3788 Walnut St.	Keystone 6911	Denver
Ramsey, R. T.	566 Metropolitan Bldg.	Main 4619	Denver
Rees, Maurice H.	2810 E. 17th Ave.	Res. Franklin 0891	Denver
Reilly, J. J.	1931 Eudora St.	York 5740	Denver
Reynolds, Edna M.	208 Metropolitan Bldg.	Keystone 1444	Denver
Richards, D. F.	804 Republic Bldg.	Tabor 4761	Denver
Rilance, C. D.	904 Republic Bldg.	Keystone 6429	Denver
Ritterspach, F. J.	820 Metropolitan Bldg.	Keystone 3124	Denver
Robb, William J.	509 Insurance Bldg.	Main 1422	Denver
Robinson, E. F.	Albany Hotel	Keystone 5211	Denver
Roe, J. F.	504 Equitable Bldg.	Tabor 1162	Denver
Rogers, F. E.	802 Majestic Bldg.	Tabor 8515	Denver
Rothwell, W. D.	438 Republic Bldg.	Tabor 3981	Denver
Ruddy, James	Park Lane Hotel	Pearl 4611	Denver
Ruegnitz, L. H.	1717 Downing St.	Tabor 5369	Denver
Rupert, H. S.	Porter Sanitarium	Pearl 3721	Denver
Russell, James E.	820 Metropolitan Bldg.	Keystone 3792	Denver
Ryan, J. G.	725 Mack Bldg.	Main 0834	Denver
Rymer, Chas. A.	4200 East Ninth Ave.	York 8500	Denver
Safarik, L. R.	1017 Republic Bldg.	Keystone 8507	Denver
Saks, H. S.	312 17th St.	Main 6884	Denver
Sams, L. V.	1010 Republic Bldg.	Main 1486	Denver
Savage, Raymond J.	635 Republic Bldg.	Tabor 1819	Denver
Sawyer, K. C.	516 Republic Building	Main 2646	Denver
Scherrer, E. A.	216 Republic Bldg.	Keystone 1624	Denver
Schmidt, E. A.	756 Jackson St.	Franklin 2625-R	Denver
Schoonover, J. A.	610 Republic Bldg.	Tabor 5514	Denver
Schroeder, R. H.	756 Metropolitan Bldg.	Tabor 6776	Denver
Schwatt, Herman	J. C. R. S.	Keystone 3161	Denver
Searle, Hester B.	1415 Welton St.	Keystone 7733	Denver
Sears, Thad P.	Medical Dept. Denver Tramway Co.	Main 5111	Denver
Sedwick, W. A.	835 Republic Bldg.	Tabor 1941	Denver
Sells, V. E.	2239 E. Colfax	Franklin 2715	Denver
Sevier, C. E.	418 Republic Bldg.	Keystone 5289	Denver
Sewall, Henry	1360 Vine St.	York 1474	Denver
Seyler, Anna G.	322 Republic Bldg.	Tabor 4041	Denver
Shea, R. M.	1244 Grant St.	Keystone 0354	Denver
Shields, J. M.	262 Metropolitan Bldg.	Tabor 4594	Denver
Simon, S.	1218 Republic Bldg.	Keystone 3417	Denver

DENVER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Sims, Harry J.	25 E. Iowa Ave.	Pearl 0211	Denver
Smith, Charles	509 Republic Bldg.	Main 5191	Denver
Smith, Guy W.	806 Metropolitan Bldg.	Keystone 5464	Denver
Smith, R. G.	506 Metropolitan Bldg.	Main 0738	Denver
Snyder, H. W.	832 Republic Bldg.	Tabor 6309	Denver
Sommer, H. O.	Adams Hotel	Tabor 7121	Denver
Spangelberger, M. A.	604 Republic Bldg.	Keystone 0108	Denver
Spicer, C. M.	1106 Republic Bldg.	Keystone 2571	Denver
Staeck, F. C.	2257 W. 32nd Ave.	Gallup 1155	Denver
Stander, T. C.	638 Metropolitan Bldg.	Keystone 4577	Denver
Stander, T. R.	613 Republic Bldg.	Main 4825	Denver
Staunton, A. G.	835 Republic Bldg.	Tabor 1941	Denver
Stein, Herman B.	310 Republic Bldg.	Tabor 1416	Denver
Stephenson, F. B.	452 Metropolitan Bldg.	Tabor 4208	Denver
Stettheimer, C. J.	Denver General Hospital	Tabor 1331	Denver
Strickler, D. A.	1520 York St.	York 1693	Denver
Struthers, J. E.	904 Republic Bldg.	Main 0813	Denver
Stuver, H. W.	324 Majestic Bldg.	Main 1968	Denver
Sunderland, W. E.	705 Republic Bldg.	Main 0560	Denver
Swerdfeger, E. B.	1763 Gilpin St.	York 3300	Denver
Swigert, J. L.	1102 Republic Bldg.	Main 6509	Denver
Taylor, E. E.	505 Republic Bldg.	Main 3014	Denver
Taylor, H. L.	415 Majestic Bldg.	Main 0424	Denver
Tepley, Leo V.	804 Republic Bldg.	Tabor 2008	Denver
Thayer, M. D.	527 Majestic Bldg.	Tabor 2766	Denver
Thomas, Atha	418 Republic Bldg.	Keystone 5289	Denver
Thomas, Ralph A.	1135 Adams St.	York 7180	Denver
Thompson, N. A.	946 Metropolitan Bldg.	Main 2232	Denver
Thulin, H. F.	104 Broadway	Spruce 0995	Denver
Towbin, Samuel	2257 W. 32nd Ave.	Gallup 1155	Denver
Tower, F. A.	302 Quincy Bldg.	Keystone 2444	Denver
Townsend, Guy W.	556 Metropolitan Bldg.	Main 1041	Denver
Triplett, T. A.	235 Majestic Bldg.	Keystone 3701	Denver
Troute, F. R.	832 Republic Bldg.	Tabor 6309	Denver
Trumbauer, C. A.	3576 E. 34th Ave.	York 5490	Denver
Ulmer, H. D.	407 Mack Bldg.	Tabor 6632	Denver
Van Meter, L. M.	834 Republic Bldg.	Tabor 7978	Denver
Van Meter, Virginia C.	1621 Court Pl.	Main 1897	Denver
Van Stone, L. M.	203 Metropolitan Bldg.	Main 1002	Denver
Van Stone, W. D.	1578 Humboldt St.	Tabor 3234	Denver
Van Zant, C. B.	460 Metropolitan Bldg.	Keystone 7463	Denver
Verploeg, Ralph H.	1850 Gilpin St.	Franklin 4772	Denver
Von Detten, H. J.	920 Republic Bldg.	Keystone 8808	Denver
Wade, L. H.	817 Majestic Bldg.	Keystone 7623	Denver
Waggener, W. R.	220 Metropolitan Bldg.	Main 0351	Denver
Walker, Chas. E.	1732 High St.	Franklin 1424	Denver
Walton, J. B.	1134 Republic Bldg.	Tabor 3447	Denver
Waring, James J.	203 Metropolitan Bldg.	Main 1002	Denver
Warner, G. R.	1206 Republic Bldg.	Keystone 5124	Denver
Wasson, W. W.	246 Metropolitan Bldg.	Tabor 3037	Denver
Waters, P. A.	309 Federal Building	Keystone 4151	Denver
Wear, Harry H.	915 Republic Bldg.	Tabor 8311	Denver
Wearner, A. A.	1134 Republic Bldg.	Keystone 2522	Denver
Weatherford, J. E.	300 United Securities Bldg.	Franklin 2715	Denver
Weiner Morris	1035 Republic Bldg.	Tabor 6817	Denver
Weinstein, Sidney S.	83 So. Broadway	Pearl 7958	Denver
Weiss, F. H.	1449 Pennsylvania St.	Keystone 0996	Denver
Whitaker, H. L.	1234 Republic Bldg.	Main 2759	Denver
Whitaker, W. O.	912 Republic Bldg.	Keystone 1918	Denver
Whitehead, R. W.	4200 E. 9th Ave.	York 8500	Denver
Whiteley, P. W.	818 Metropolitan Bldg.	Tabor 6063	Denver
Williams, G. Z.	456 Metropolitan Bldg.	Tabor 1671	Denver
Williams, Sherman	346 Metropolitan Bldg.	Main 1506	Denver
Williams, William Whittridge	503 Majestic Bldg.	Tabor 4312	Denver
Willis, C. H.	307 Railway Exchange Bldg.	Tabor 8418	Denver
Wilson, A. Lawrence	606 Metropolitan Bldg.	Main 4543	Denver
Wilson, R. E.	1008 Republic Bldg.	Tabor 8324	Denver
Winemiller, L. H.	404 Republic Bldg.	Keystone 4812	Denver
Withers, Sanford M.	304 Republic Bldg.	Keystone 8633	Denver
Wolf, J. A.	310 Republic Bldg.	Tabor 1416	Denver
Wolfe, A. M.	1101 Republic Bldg.	Cherry 2000	Denver
Wollenweber, L. C.	808 Republic Bldg.	Keystone 8443	Denver
Wollgast, Geo. F.	1448 So. Broadway	Spruce 5118	Denver

DENVER (Continued)

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Woodcock, W. C.	315 Emerson St.	Pearl 8464	Denver
Work, Philip	1202 Republic Bldg.	Keystone 8333	Denver
Workman, Cloyd W.	1078 So. Gaylord St.	Pearl 6690	Denver
Worthington, A. K.	1554 California St.		Denver
Wright, G. M.	331 Mack Bldg.	Main 2426	Denver
Yegge, W. B.	436 Metropolitan Bldg.	Main 1346	Denver
Yont, Kate E. G.	4420 W. 31st Ave.	Gallup 4649	Denver
Young, H. B.	330 Republic Bldg.	Tabor 1062	Denver
Zarit, John I.	266 Metropolitan Bldg.	Tabor 4289	Denver

DOLORES, COLORADO

Lefurgey, H. C.	Dolores	Dolores 48R	San Juan
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DURANGO, COLORADO

Burnett, A. L.	Kruschke Bldg.	Durango 212	San Juan
Darling, J. C.	Century Bldg.	Durango 60	San Juan
Downing, R. L.	126 W. 9th St.	Durango 161	San Juan
Elliott, W. M.	946 Main	Durango 322	San Juan
Lingenfelter, H. A.	102 E. 8th St.	Durango 203	San Juan
Rensch, O. B.	Century Bldg.	Durango 441	San Juan
Readruck, R. Davis	Bcx 206	Durango	San Juan

EADS, COLORADO

Mitchell, Lee Roy	Eads	Eads 22	Prowers
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EAGLE, COLORADO

Hotopp, T. M. H.	Eagle	Eagle 48 F. 2	Garfield
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EASTLAKE, COLORADO

Elmore, R. D.	Eastlake	Broomfield 67-J2	Adams
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EATON, COLORADO

Corbin, E. A.	Eaton	Eaton 6	Weld
Hall, A. Z.	Eaton	Eaton 135	Weld
Holden, E. G.	Eaton	Eaton 27	Weld

ECKLEY, COLORADO

Reth, H. W.	Eckley		Washington-Yuma
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EDGEWATER, COLORADO

Bailey, George P.	1393 Sheridan Boulevard	Lakewood 314	Denver
Sunderland, O. R.	2503 Benton St.	Gallup 4141	Denver

ELBERT, COLORADO

Denney, R. H.	Elbert	Elbert 242	Denver
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ELIZABETH, COLORADO

Bennett, W. S.	Elizabeth	Elizabeth 17	Arapahoe
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ENGLEWOOD, COLORADO

Allredge, H. H.	3503 So. Broadway	Englewood 7J	Denver-Arapahoe
Eigler, C. O.	3498 So. Broadway	Englewood 1206	Arapahoe
Isbell, N. Paul	3485 So. Broadway	Englewood 18	Denver-Arapahoe
Pollock, Louis	3533 So. Broadway	Englewood 53	Arapahoe
Simon, John	3345 So. Broadway	Englewood 192W	Arapahoe
Wiedenmann, J. C.	3498 So. Broadway	Englewood 200	Arapahoe
Work, Hubert	Tallwood-University Road	Pearl 8211	Pueblo

ERIE, COLORADO

Bixler, C. W.	Erie	Erie 22-R1	Boulder
Cooke, M. W.	Box 192	Erie 22-R1	Boulder

ESTES PARK, COLORADO

Mall, Jacob O.	Estes Park	Estes Park 78	Larimer
Weist, Roy F.	Estes Park	Estes Park 41	Larimer

EVANS, COLORADO

Averill, H. W.	Evans	Evans 44-F1	Weld
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EVERGREEN, COLORADO

Mason, George E.	Box 22, Evergreen	Evergreen 112	Denver
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FAIRPLAY, COLORADO

Burlingame, Robert M.	Fairplay	Fairplay 57	Denver
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FLAGLER, COLORADO

Name	Address	Telephone	Society
Reid, E. W.	Flagler	Flagler 82	Kit Carson

FLORENCE, COLORADO

Adkinson, Royal C.	Blunt Bldg.	Florence 128	Fremont
Hutton, Vardry A.	Blunt Bldg.	Florence 152	Fremont
Rupert, L. E.	119 E. 2nd St.	Florence 16	Fremont
Waroshill, A. D.	Daniels Blk.	Florence 218	Fremont

FORT COLLINS, COLORADO

Beebe, N. L.	Robertson Bldg.	Ft. Collins 343W	Larimer
Brownell, W. F.	Colorado Bldg.	Ft. Collins 219W	Larimer
Carey, J. D.	Poudre Valley National Bank Bldg.	Ft. Collins 204	Larimer
Carroll, Frank	Robertson Bldg.	Ft. Collins 2041W	Larimer
Cram, Victor E.	Physicians Bldg.	Ft. Collins 1048W	Larimer
Dickey, L. D.	210 Colorado Bldg.	Ft. Collins 395W	Larimer
Dickey, Olive L.	210 Colorado Bldg.	Ft. Collins 395W	Larimer
Garrison, G. E.	Robertson Building	Fort Collins 219W	Larimer
Gleason, R. L.	Robertson Bldg.	Ft. Collins 440W	Larimer
Halley, S. C.	Colorado Bldg.	Ft. Collins 323	Larimer
Hartshorn, Daune F.	Physicians Bldg.	Ft. Collins 321	Larimer
Hartshorn, F. H.	Physicians Bldg.	Ft. Collins 321	Larimer
Haughey, I. W.	203 Trimble Bldg.	Ft. Collins 263W	Larimer
Honstein, C. E.	Wilson Bldg.	Ft. Collins 101W	Larimer
Humphrey, F. A.	Trimble Bldg.	Ft. Collins 560W	Larimer
Lee, Robert M.	Physicians Building	Fort Collins 460W	Larimer
Little, Lowell	Colorado Bldg.	Ft. Collins 669W	Larimer
McHugh, P. J.	P. O. Box 194	Ft. Collins 50W	Larimer
Morrill, E. L.	633 Remington St.	Ft. Collins 790	Larimer
Platz, C. H.	Colorado Bldg.	Ft. Collins 889W	Larimer
Taylor, T. Clarkson	Physicians Bldg.	Ft. Collins 400	Larimer

FORT LUPTON, COLORADO

Monismith, A. T.	Fort Lupton	Ft. Lupton 6J	Weld
Pearson, E. R.	Fort Lupton	Ft. Lupton 148	Weld

FORT LYON, COLORADO

Fulwider, Robert M.	Fort Lyon	Las Animas 82	Otero & Denver
Jackson, B. F.	Fort Lyon	Las Animas 82	Otero
Smith, L. C.	Fort Lyon	Las Animas 82	Otero

FORT MORGAN, COLORADO

Clark, I. J.	Box 577	Ft. Morgan 499	Morgan
Johnson, Harry A.	Morgan County Bank Bldg.	Ft. Morgan 37W	Morgan
Lockwood, F. W.	First National Bank Bldg.	Ft. Morgan 137	Morgan
Williams, A. F.	220 E. Beaver Ave.	Ft. Morgan 18	Morgan
Woodward, Paul E.	220 E. Beaver Ave.	Ft. Morgan 18	Morgan

FOWLER, COLORADO

Van Der Schouw, G. E.	Fowler	Fowler 50W	Otero
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FREDERICK, COLORADO

McCabe, F. G.	Frederick	Frederick 42	Boulder
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FRUITA, COLORADO

Orr, James S.	Fruita	Fruita 4W	Mesa
White, H. W.	Fruita	Fruita 5W	Mesa

GILMAN, COLORADO

Nutting, B. E.	Gilman	Gilman 20J	Chaffee
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GLENWOOD SPRINGS, COLORADO

Clagett, O. T.	Glenwood Springs	Glenwood Springs 69W	Garfield
Crook, W. W.	First National Bank Bldg.	Glenwood Springs 162	Garfield
Evans, W. W.	Glenwood Springs	Glenwood Springs 162	Garfield
Hopkins, G. A.	Citizens National Bank Bldg.	Glenwood Springs 63W	Garfield
Porter, R. B.	First National Bank Bldg.	Glenwood Springs 25W	Garfield

GOLDEN, COLORADO

Garvin, D. E.	815 12th St.	Golden 68	Denver
Howlett, R. G.	Golden	Golden 99	Clear Creek Valley
Kemble, E. W.	Golden	Golden 6	Clear Creek Valley
Robinovitch, Louise G.	Golden		Denver

GRANADA, COLORADO

Name	Address	Telephone	Society
Thompson, Lewis N.	Granada		Prowers

GRAND JUNCTION, COLORADO

Cary, G. C.	Canon Bldg.	Grand Junction 839	Mesa
Day, H. S.	Fair Bldg.	Grand Junction 403	Mesa
Feldman, G. G.	Fair Bldg.	Grand Junction 403	Mesa
Ford, J. E.	Reed Bldg.	Grand Junction 908W	Mesa
Graves, H. C.	407 First National Bank Bldg.	Grand Junction 8J	Fremont
Hanson, K.	Canon Bldg.	Grand Junction 101	Mesa
Maxwell, D. M.	First National Bank Bldg.	Grand Junction 62W	Mesa
McDonough, F. J.	Grand Valley Bank Bldg.	Grand Junction 79	Mesa
Munro, E. H.	Canon Bldg.	Grand Junction 839	Mesa
Peterson, E. H.	Margery Bldg.	Grand Junction 29	Mesa
Reed, C. W.	Margery Bldg.	Grand Junction 904	Mesa
Sickenberger, J. U.	Grand Valley Bank Bldg.	Grand Junction 926	Mesa
Taylor, A. G.	Currie Bldg.	Grand Junction 333W	Mesa
Tupper, Harvey M.	26 Canon Blk.	Grand Junction 740	Mesa

GRAND VALLEY, COLORADO

Miller, Fred H.	Grand Valley	Grand Valley 33	Garfield
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GREELEY, COLORADO

Allen, W. P.	822½ 9th St.	Greeley 1882	Weld
Atkinson, T. E.	Coronado Bldg.	Greeley 65	Weld
Bennell, O. E.	Greeley Union National Bank Bldg.	Greeley 163	Weld
Broman, O. F.	Greeley Bldg.	Greeley 528	Weld
Bryson, Margaret E.	State Teachers College	Greeley 2000	Weld
Dyde, C. B.	Park Place Bldg.	Greeley 61W	Weld
Fezer, Florence	811 12th St.	Greeley 1944	Weld
Fuqua, J. W.	800½ 9th St.	Greeley 1369W	Weld
Graham, R. F.	1129 7th St.	Greeley 1515	Weld
Groshart, O. D.	CCC Camp	Greeley 1351	Otero
Harmer, W. W.	Greeley Bldg.	Greeley 80W	Weld
Haskell, E. E.	Route 3, Box 95	Greeley 147	Weld
Knowles, E. W.	Greeley Bldg.	Greeley 69W	Weld
Lehan, J. W.	Park Place Bldg.	Greeley 28-F1	Weld
Lux, Leo L.	Greeley Bldg.	Greeley 107W	Weld
Madler, N. A.	Greeley Bldg.	Greeley 25	Weld
Mead, Ella A.	Coronado Bldg.	Greeley 91	Weld
Peppers, Tracy D.	Central Bldg.	Greeley 147	Weld
Ringle, C. A.	Coronado Bldg.	Greeley 65	Weld
Schoen, W. A.	Greeley Bldg.	Greeley 935W	Weld
Thompson, W. E.	Greeley Bldg.	Greeley 23-F1	Weld
Von-Den-Steinen, Edward	State Teachers College	Greeley 2000	Weld
Weaver, J. A.	Greeley Bldg.	Greeley 70W	Weld
Weaver, J. A., Jr.	1409 Ninth St.	Greeley 585W	Weld
Webster, W. W.	202 Greeley Building	Greeley 147	Weld
Wilmoth, T. C.	Central Bldg.	Greeley 380W	Weld

GROVER, COLORADO

Levine, S. J.	Grover		Weld
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GUNNISON, COLORADO

Mast, W. H.	Gunnison	Gunnison 147	Pueblo
McDonough, J. P.	Gunnison	Gunnison 147	Chaffee

HARTMAN, COLORADO

Fitzgerald, D. L.	Hartman	Hartman 7	Prowers
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HAXTUN, COLORADO

Kinzie, J. W.	Haxtun	Haxtun 105-R3	Northeast
Lubchenko, Portio McKnight McKnight	Hospital	Haxtun 117R3	Northeast
McKnight, J. H.	Haxtun	Haxtun 117-R3	Northeast
Mooney, W. E.	Haxtun	Haxtun 112-R3	Northeast

HAYBRO, COLORADO

Newland, D. E.	Haybro		Northwestern
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HAYDEN, COLORADO

Whittaker, D. L.	Hayden	Hayden 42	Northwestern
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HOLLY, COLORADO

Casburn, F. E.	Holly	Holly 30W	Prowers
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HOLYOKE, COLORADO

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Hill, H. C.	Holyoke	Holyoke 6500	Northeast
Means, F. M.	Holyoke	Holyoke 4302	Northeast

HOTCHKISS, COLORADO

Myers, James T.	Hotchkiss		Delta
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ILIFF, COLORADO

Houf, H. W.	Iliff	Iliff 7	Northeast
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JOES, COLORADO

Regehr, J. K.	Joes	Joes 5	Washington-Yuma
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JOHNSTOWN, COLORADO

Jones, Glenn A.	Johnstown	Johnstown 57W	Weld
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JULESBURG, COLORADO

Folsom, C. H.	Julesburg	Julesburg 17W	Northeast
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KERSEY, COLORADO

Van Landegham, F. P. N.	Kersey	Greeley Red 57-J3	Weld
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KIRK, COLORADO

Blanchard, L. W.	Kirk		Weld
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KIT CARSON, COLORADO

Law, E. L.	Kit Carson	Kit Carson 10W	Kit Carson
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KLINE, COLORADO

Smith, C. D.	Kline	Call Long Distance No. 401	San Juan
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KREMMLING, COLORADO

Sudan, A. C.	Kremmling	Kremmling 3	Northwestern
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LAFAYETTE, COLORADO

Braden, J. M.	Lafayette	Lafayette 24W	Boulder
Porter, V. W.	Lafayette	Lafayette 63	Boulder

LA JARA, COLORADO

Walsh, H. F.	La Jara	La Jara 55	San Luis Valley
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LA JUNTA, COLORADO

Calonge, G. E.	McNeen Bldg.	La Junta 186	Otero
Cooper, Thomas J.	Colorado Trust Bldg.	La Junta 84	Otero
Farnsworth, M. A.	La Junta	La Junta 115	Otero
Hansen, A. S.	401 Smithland Ave.	La Junta 210	Otero
Johnston, R. S.	401 Smithland Ave.	La Junta 210	Otero
Morse, C. E.	McNeen Bldg.	La Junta 167	Otero
Stickles, Albert	La Junta	La Junta 2	Otero
Weber, C. C.	La Junta	La Junta 210	Otero

LAMAR, COLORADO

Burnett, N. M.	Lamar	Lamar 2	Prowers
Knuckey, Clyde T.	200½ So. Main St.	Lamar 92W	Prowers
Likes, L. E.	Lamar	Lamar 305W	Prowers
Rummell, R. J.	200½ So. Main St.	Lamar 74W	Prowers

LA SALLE, COLORADO

Wilkinson, W. L.	La Salle	La Salle 18	Weld
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LAS ANIMAS, COLORADO

Gaines, Joseph R.	Las Animas	Las Animas 348	Otero
Hagerman, S. V.	Las Animas	Las Animas 9	Otero

LA VETA, COLORADO

Lee, Earl R.	La Veta	La Veta 18	Huerfano
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LEADVILLE, COLORADO

Condon, Charles E.	Leadville	Leadville 10	Lake
Fitzgerald, R. H.	Leadville	Leadville 36	Lake
McDonald, Franklin J.	Leadville	Leadville 121	Lake
Strong, J. C.	Leadville	Leadville 72W	Lake

LIMON, COLORADO

Name	Address	Telephone	Society
Kennedy, G. A.	Limon	Limon 19W	Denver
Kessenger, J. D.	Limon	Limon 82J	Kit Carson

LITTLETON, COLORADO

Crysler, W. C.	Coors Bldg.	Littleton 44	Arapahoe
Moore, G. C.	First National Bank Bldg.	Littleton 132W	Denver-Arapahoe
Otte, J. E.	169 N. Logan	Littleton 211 Res. 10	Denver-Arapahoe

LONGMONT, COLORADO

Andrew, John	Longmont Hospital	Longmont 32J	Boulder
Dietmier, H. R.	Longmont Hospital	Longmont 25	Boulder
Hageman, George R.	Longmont Hospital	Longmont 867J	Boulder
Jernigan, V. J.	615 4th Ave.	Longmont 247	Boulder
Matlack, J. A.	Longmont Hospital	Longmont 30	Boulder
Sidwell, C. E.	608 4th Ave.	Longmont 200J	Boulder
White, W. J.	662 4th Ave.	Longmont 50	Boulder
Woods, W. P.	662 4th Ave.	Longmont 51	Boulder

LOUISVILLE, COLORADO

Bartholomew, J. D.	Louisville	Louisville 81	Boulder
Cassidy, L. F.	Louisville	Louisville 51J	Denver
Miller, R. B.	Louisville	Louisville 18W	Boulder
Snair, W. L.	Louisville	Louisville 81	Boulder

LOVELAND, COLORADO

Adams, B. L.	Larimer County Bank Bldg.	Loveland 52	Larimer
Gasser, John J.	428 Lincoln Ave.	Loveland 246	Larimer
Gasser, W. P.	428 Lincoln Ave.	Loveland 393	Larimer
Joslyn, S. A.	State Mercantile Bldg.	Loveland 84	Larimer
McFadden, J. G.	433 N. Lincoln Ave.	Loveland 16	Larimer
Stewart, M. J.	Larimer County Bank Bldg.	Loveland 171	Larimer

MANCOS, COLORADO

Cendit, E. G.	CCC Camp	Mancos 87-R13	San Juan
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MANITOU, COLORADO

Beck, L. H.	Manitou	Hyland 10	El Paso
Winston, A. L.	Manitou	Hyland 2W	El Paso

MANZANOLA, COLORADO

Adams, V. K.	Manzanola	Manzanola 24W	Otero
Bartholomew, W. S.	Manzanola	Manzanola 1W	Crowley

McPHEE, COLORADO

Speck, R. T.	McPhee	McPhee 45-J3	San Juan
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MEEKER, COLORADO

Brewer, M. I.	Meeker	Meeker 61W	Garfield
Farthing, C. H.	Meeker	Meeker 4	Garfield

MILLIKEN, COLORADO

Fuson, C. C.	Milliken	Milliken 16W	Weld
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MONTE VISTA, COLORADO

Smith, C. A.	Monte Vista	Monte Vista 70	San Luis Valley
Taylor, R. D.	Monte Vista	Monte Vista 22W	San Luis Valley
Trueblood, Charles	Monte Vista	Monte Vista 99	San Luis Valley

MONTROSE, COLORADO

Brethouwer, C. G.	Box 247	Montrose 399	Montrose
Brethouwer, N. A.		Montrose 399	Montrose
Didrickson, F. G.	602 Main St.	Montrose 29	Montrose
Knott, Isaiah	Keller Bldg.	Montrose 99W	Montrose
Lockwood, Chas. E.	Keller Bldg.	Montrose 137W	Montrose
Spring, John A.	602 Main St.	Montrose 29	Montrose

MORLEY, COLORADO

Parker, Thadd	Morley		Las Animas
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MOUNT HARRIS, COLORADO

Sloan, W. W.	Mount Harris	Hayden 92-J2	Northwestern
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NEW RAYMER, COLORADO

Olson, D. G.	New Raymer	Call Long Distance	Weld
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OAK CREEK, COLORADO

Name	Address	Telephone	Society
Courtney, R. F.	Oak Creek	Oak Creek 73	Northwestern
Morrow, E. L.	Oak Creek	Oak Creek 29	Northwestern

OLATHE, COLORADO

Lull, Lynn J.	Olathe	Olathe 130	Montrose
Winningham, J. J.	Olathe	Olathe 126	Montrose

OLNEY SPRINGS, COLORADO

Hipp, J. A.	Olney Springs	Ordway 85-R4	Crowley
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ORDWAY, COLORADO

Desmond, Wm. M.	Ordway	Ordway 154	Crowley
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OTIS, COLORADO

Yates, John B.	Otis	Otis 38	Washington-Yuma
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OURAY, COLORADO

Spangler, E. L.	Ouray	Ouray 27	Montrose
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OVID, COLORADO

Peterson, A. E.	Ovid	Ovid 39	Northeast
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PAGOSA SPRINGS, COLORADO

Miskoweic, A.	Pagosa Springs	Call Long Distance	San Juan
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PAONIA, COLORADO

Hazlett, H. W.	Paonia	Call Long Distance	Delta
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PHIPPSBURG, COLORADO

Fleming, W. S.	Phippsburg	Oak Creek 70-R1	Northwestern
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PIERCE, COLORADO

Mitchell, D. M.	Pierce	Pierce 4W	Weld
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PLATTEVILLE, COLORADO

Kern, B. F.	Platteville	Platteville 8W	Weld
Scheidt, J. H.	Platteville	Platteville 8W	Weld

PORTLAND, COLORADO

Davis, T. A.	Portland	Florence 186-J1	Fremont
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PRITCHETT, COLORADO

Bryant, W. A.	Pritchett	Pritchett 46W	Prowers
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PUEBLO, COLORADO

Baker, W. T. H.	702 No. Main St.	Pueblo 6000	Pueblo
Black, H. A.	702 No. Main St.	Pueblo 6000	Pueblo
Bordner, Alta E.	State Hospital	Pueblo 3451	Pueblo
Buck, W. E.	New City Hall	Pueblo 370	Pueblo
Burkhard, Edwin D.	408 Colorado Bldg.	Pueblo 679	Pueblo
Caldwell, C. N.	320 Colorado Bldg.	Pueblo 483	Pueblo
Corry, E. H.	Corwin Hospital	Pueblo 1210	Pueblo
Craighead, J. W.	Corwin Hospital	Pueblo 5028	Pueblo
Crozier, R. B.	513 Broadway	Pueblo 2189	Pueblo
Davis, Roy E.	Colorado Fuel & Iron Co. Dispensary	Pueblo 5800	Pueblo
Dunlop, Josephine N.	Corwin Hospital	Pueblo 3774	Pueblo
Earnest, Clarence E.	414 Thatcher Bldg.	Pueblo 86	Pueblo
Epler, Crum	Woodcroft Hospital	Pueblo 346	Pueblo
Farley, John B.	544 Thatcher Bldg.	Pueblo 483	Pueblo
Finney, R. H.	Corwin Hospital	Pueblo 1210	Pueblo
Gale, Scott A.	Corwin Hospital	Pueblo 1210	Pueblo
Geissinger, J. D.	702 No. Main St.	Pueblo 6000	Pueblo
Glather, A. W.	State Hospital	Pueblo 3451	Pueblo
Heller, F. M.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Hopkins, G. H.	702 No. Main St.	Pueblo 6000	Pueblo
Hutchinson, Wm.	C. F. & I. Dispensary	Pueblo 5800	Pueblo
Ireland, P. M.	430 Colorado Bldg.	Pueblo 2078	Pueblo
James, W. A.	C. F. & I. Dispensary	Pueblo 461	Pueblo
Konwaler, B. E.	St. Mary Hospital	Pueblo 1096	Pueblo
LaMoure, H. A.	Colorado State Hospital	Pueblo 3451	Pueblo
Lassen, Fritz	702 No. Main St.	Pueblo 6000	Pueblo
Low, H. T.	626 Thatcher Bldg.	Pueblo 402	Pueblo
Lowe, Wilbur	232 Colorado Bldg.	Pueblo 1936	Pueblo
Luqueer, F. A.	702 No. Main St.	Pueblo 6000	Pueblo

PUEBLO (Continued)

Name	Address	Telephone	Society
Maynard, C. W.	702 No. Main St.	Pueblo 6000	Pueblo
McDonnell, J. J.	103 Broadway	Pueblo 232	Pueblo
Merriman, Amherst	Colorado Bldg.	Pueblo 1460	Pueblo
Myers, George M.	702 No. Main St.	Pueblo 6000	Pueblo
Nelson, Samuel	216 Colorado Bldg.	Pueblo 1871	Pueblo
Nicoletti, Frank	302 Colorado Bldg.	Pueblo 1319	Pueblo
Norman, J. S.	Corwin Hospital	Pueblo 1210	Pueblo
Pattee, J. J.	Thatcher Bldg.	Pueblo 241	Pueblo
Patterson, W. O.	Pope Building	Pueblo 757	Pueblo
Peirce, F. J.	650 Thatcher Bldg.	Pueblo 432	Pueblo
Prendergast, J. J.	542 Thatcher Bldg.	Pueblo 432	Pueblo
Rice, George E.	702 No. Main St.	Pueblo 6000	Pueblo
Rich, W. F.	Thatcher Bldg.	Pueblo 1154	Pueblo
Robe, R. C.	Thatcher Bldg.	Pueblo 333	Pueblo
Rosenbloom, Julius Lee	Colorado State Hospital	Pueblo 3451	Pueblo
Rusk, H. S.	Colorado Bldg.	Pueblo 174	Pueblo
Schwer, J. L.	522 Thatcher Bldg.	Pueblo 282	Pueblo
Senger, William	Corwin Hospital	Pueblo 1210	Pueblo
Shaw, Dwight B.	702 N. Main St.	Pueblo 6000	Pueblo
Singer, W. F.	114 W. 9th St.	Pueblo 80	Pueblo
Snedec, J. F.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Steinhardt, E. H.	Basement City Hall	Pueblo 3865	Pueblo
Stoddard, T. A.	Thatcher Bldg.	Pueblo 483	Pueblo
Streamer, C. W.	401 Colorado Bldg.	Pueblo 140	Pueblo
Taylor, R. R.	Thatcher Bldg.	Pueblo 587	Pueblo
Thompson, J. W.	Thatcher Bldg.	Pueblo 480	Pueblo
Unfug, G. A.	316 Colorado Bldg.	Pueblo 383	Pueblo
Vogt, H. J.	103 Broadway	Pueblo 232	Pueblo
Ward, L. L.	316 Colorado Bldg.	Pueblo 383	Pueblo
White, J. W.	702 No. Main	Pueblo 6000	Pueblo
Wolf, John G.	431 Colorado Bldg.	Pueblo 153	Pueblo
Woodbridge, J. H.	650 Thatcher Bldg.	Pueblo 400	Pueblo
Zimmerman, F. H.	Colorado State Hospital	Pueblo 5741	Pueblo

RIFLE, COLORADO

Clagett, O. F.	Rifle	Rifle 63W	Garfield
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ROCKY FORD, COLORADO

Baker, G. M.	409 S. Main	Rocky Ford 318J	Crowley
Blotz, B. B.	First National Bank Bldg.	Rocky Ford 100	Otero
Blotz, B. F.	First National Bank Bldg.	Rocky Ford 100	Otero
Fenton, W. C.	918 Elm Ave.	Rocky Ford 363J	Otero
Lawson, J. A.	209½ No. Main St.	Rocky Ford 80J	Otero

SAGUACHE, COLORADO

Gotthelf, I. L.	Saguache	Saguache 86F1	San Luis Valley
Shippey, O. P.	Saguache	Saguache 23	San Luis Valley

SALIDA, COLORADO

Bender, A. J.	Disman-Alger Bldg.	Salida 27	Lake
Cochems, F. N.	Third & G Sts.	Salida 63	Lake
Curfman, George H.	1st & F Sts.	Salida 156	Chaffee
Fuller, C. R.	1st & F Sts.	Salida 80	Chaffee
Larimer, G. W.	Rio Grande Hospital	Salida 145W	Chaffee
Parker, O. T.	Sandusky Bldg.	Salida 50	Chaffee
Thompson, L. E.	Woolworth Bldg.	Salida 133	Chaffee

SAN LUIS, COLORADO

Diaz, Rudolph	San Luis		San Luis Valley
Schwer, Carl	San Luis		Denver

SEGUNDO, COLORADO

Drisdale, W. E.	Segundo	Trinidad 0312-J2	Las Animas
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SEIBERT, COLORADO

McBride, William L.	Seibert	Seibert 14-W	Kit Carson
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SIMLA, COLORADO

Groves, Dale O.	Simla	Simla 5-H2	El Paso
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SOMERSET, COLORADO

McConnell, J. E.	Somerset	Call Long Distance	Delta
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SPRINGFIELD, COLORADO

Name	Address	Telephone	Society
Patterson, R. F.	Golden Rule Bldg.	Springfield 49-F2	Prowers

STEAMBOAT SPRINGS, COLORADO

Turner, Duane	Steamboat Springs	Steamboat Springs 103	Northwestern
Willett, F. E.	Steamboat Springs	Steamboat Springs 44	Northwestern

STERLING, COLORADO

Daniel, J. H.	Henderson Bldg.	Sterling 242W	Northeast
Elliff, E. A.	108 No. 3rd St.	Sterling 993W	Northeast
Hummel, E. P.	Commercial Bldg.	Sterling 501W	Northeast
Latta, C. J.	123 So. 2nd St.	Sterling 468W	Northeast
Morehouse, J. A.		Sterling 766W	Northeast
Naugle, J. E.	Henderson Bldg.	Sterling 787	Northeast
Palmer, F. E.	Henderson Bldg.	Sterling 327W	Northeast
Schmitt, O. J.	123 So. 2nd St.	Sterling 323-W	Northeast
Tripp, C. I.	123 So. 2nd St.	Sterling 178W	Northeast

STRASBURG, COLORADO

Lewark, Sarah D. H.	Strasburg	Strasburg 1	Arapahoe
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SWINK, COLORADO

Stanley, George B.	Box 185	Swink 499J3	Weld
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TELLURIDE, COLORADO

Parker, J. J.	Telluride	Telluride 20	Delta
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TIOGA, COLORADO

Fowler, J. R.	Tioga	Walsenburg 08-J1	Huerfano
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TRINIDAD, COLORADO

Abrums, H. E.	105 E. Main St.	Trinidad 82	Las Animas
Adams, O. F.	201½ E. Main St.	Trinidad 1260	Las Animas
Albi, M. C.	Turner Bldg.	Trinidad 1	Las Animas
Beshoar, Ben B.	234½ No. Commercial St.	Trinidad 3	Las Animas
Beuchat	14 McCormick Bldg.	Trinidad 21	Las Animas
Carmichael, P. W.	McCormick Bldg.	Trinidad 346	Las Animas
Costigan, D. D.	Opera House Bldg.	Trinidad 15	Las Animas
Espey, J. G.	Main & Animas Sts.	Trinidad 2	Las Animas
Espey, James G., Jr.	402 W. Main St.	Trinidad 2	Las Animas
Freudenthal, Alfred	Samuel Bldg.	Trinidad 356	Las Animas
McClure, Charles O.	127 No. Commercial St.	Trinidad 447W	Las Animas
Newburn, Walter L.	Opera House Bldg.	Trinidad 848	Las Animas
Richie, Lee T.	McCormick Bldg.	Trinidad 163	Las Animas

TWO BUTTES, COLORADO

Verity, William P.	Two Buttes	Two Buttes 8J	Prowers
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VONA, COLORADO

Hewitt, V. M.	Vona	Vona 11	Kit Carson
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WALSENBURG, COLORADO

Andrews, George D.	513 Main St.	Walsenburg 134W	Huerfano
Chapman, W. S.	118 E. 5th St.	Walsenburg 324	Huerfano
Lamme, J. M.	Lamme Bros. Hospital	Walsenburg 178	Huerfano
Lamme, S. J.	Lamme Bros. Hospital	Walsenburg 178	Huerfano
Matthews, P. G.	Kearns Bldg.	Walsenburg 92W	Huerfano
Noonan, George M.	118 E. 5th St.	Walsenburg 324	Huerfano

WALSH, COLORADO

Hayes, H. M.	P. O. Box 136	Walsh 24	Prowers
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WAUNITA HOT SPRINGS, COLORADO

Woern, W. H.	CCC Camp		Larimer
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WELLINGTON, COLORADO

Betts, F. A.	Wellington	Wellington 8	Larimer
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WHEATRIDGE, COLORADO

Masten, A. R.	Lutheran Sanitarium	Arvada 633	Denver
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WIGGINS, COLORADO

Handles, Jacob	Wiggins	Wiggins 24	Morgan
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WILEY, COLORADO

<i>Name</i>	<i>Address</i>	<i>Telephone</i>	<i>Society</i>
Housel, C. L.	Wiley	Wiley 54	Prowers

WINDSOR, COLORADO

Bartz, L. E.	Windsor	Windsor 5	Weld
Nelson, G. E.	Windsor	Windsor 4	Weld
Sabin, C. W.	Windsor	Windsor 113	Weld

WOODMEN, COLORADO

Forney, F. A.	Woodmen	Main 1018	El Paso
Harris, C. E.	Woodmen	Main 1018	El Paso
Schultz, H. H.	Woodmen	Main 1018	El Paso

WRAY, COLORADO

Bauer, W. W.	Wray	Wray 233	Washington-Yuma
Buchanan, Lawrence D.	Wray	Wray 138	Washington-Yuma
Kitzmler, H. V.	Wray	Wray 25	Washington-Yuma
Larson, J. H.	Wray	Wray 138	Washington-Yuma

YAMPA, COLORADO

Male, J. T.	Yampa	Yampa 17	Northwestern
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YUMA, COLORADO

Bennett, C. J.	Yuma	Yuma 73	Washington-Yuma
Bilsborrow, G. B.	Yuma	Yuma	Washington-Yuma
Flaten, A. P.	Yuma	Yuma 278	Washington-Yuma
Ham, J. P.	Yuma	Yuma	Washington-Yuma

OUT OF STATE

<i>Name</i>	<i>Address</i>	<i>Postoffice</i>	<i>Society</i>
Anderson, George M.	Boyd Bldg.	Cheyenne, Wyo.	Denver
Anderson, Thompson		Bylas, Arizona	Denver
Andrus, L. F.	Spanish Fork	Spanish Fork, Utah	Denver
Bendurant, A. J.		Jefferson Barracks, Mo.	Otero
Brown, Thad C.		West Pittsburgh, Pa.	Larimer
Cavanaugh, John L.		Carlsbad, New Mexico	Garfield
Chapman, E. N.	440 W. 11th St.	Claremont, Calif.	El Paso
Charney, Herman	Oncida County Hospital	Rome, N. Y.	Pueblo
Cook, R. C.	Veterans' Administration Hospital	Excelsior Springs, Mo.	Otero
Cornell, H. M.	Dulce	Dulce, N. M.	San Juan
Dunkle, Frank	4530 Spruce St.	Philadelphia, Pa.	Chaffee
Earp, J. R.	Box 750	Santa Fe, N. M.	Denver
Ellis, A. G.	Bangkok	Bangkok, Siam	El Paso
Espey, John R.	6511 Arbutus St.	Huntington, Park, Calif.	Las Animas
Fonda, James W.	CCC Camp	Canyon, Texas	Boulder
Johnson, George D.		Whites Creek, W. Va.	Fremont
Jones, S. Fosdick	710 So. Orange Grove Avenue	Pasadena, Calif.	Denver
Kampmeier, Rudolph H.	Louisiana State University	New Orleans, La.	Pueblo
Klerk, W. J.		Sheldon, Iowa	Pueblo
Koplowitz, J. E.	1728 Bolton St.	Baltimore, Maryland	Denver
McArthur, A. W.	Chillicothe	Chillicothe, Mo.	Delta
McGill, Earl D.	3923 Warwick Blvd.	Kansas City, Mo.	Denver
Menkel, H. C.	Simla	Simla, India	Denver
Plank, J. R.	Charity Hospital	New Orleans, La.	Denver
Price, Ligon	Fairmount Hospital No. 6	Fairmount, W. Va.	Denver
Reid, H. S.	Desert Inn	Palm Springs, Calif.	Denver
Richardson, H. L.	1734 P Street N. W.	Washington, D. C.	El Paso
Richie, G. T.	Sunrise	Sunrise, Wyo.	Denver
Salisbury, E. I.	326 Park Blvd.	Marion, Ohio	Denver
Sorenson, George	367 Cumberland St.	Glendale, California	Otero
Stemen, W. E.	765 Bedford Road	Gross Point Park, Mich.	Denver
Tidd, C. H.	539 N. Hoover	Whittier, Calif.	Delta
Tirador, P. A.	Chilecco	Chilecco, Oklahoma	Pueblo

HONORARY MEMBERS

Bierring, Walter L.	Des Moines, Iowa.	McArthur, Lewis Linn	Chicago, Ill.
Cabot, Richard C.	Cambridge, Mass.	Ridlon, John	Newport, R. I.
Farrand, Livingston	Ithaca, N. Y.	Tyndale, William Robert	Salt Lake City, Utah
Mayo, Chas. H.	Rochester, Minn.	Wilson, L. B.	Rochester, Minn.

ASSOCIATE MEMBERS

<i>Name</i>	<i>Local Address</i>	<i>Postoffice</i>	<i>Constituent Society</i>
Bane, W. C.	1005 Republic Bldg.	Denver	Denver
Bates, Mary E.	228 Majestic Bldg.	Denver	Denver
Bellrose, N. W.		Eaton	Weld
Berlin, W. C. K.	531 Mack Bldg.	Denver	Denver
Bonney, Sherman G.	115 W. First St.	DeKalb, Illinois,	Denver
Cattermole, George H.	605 Pine St.	Boulder	Boulder
Conant, Edgar F.	823 Republic Bldg.	Denver	Denver
Crews, George B.	3135 W. Forty-fourth Ave.	Denver	Denver
Fox, M. R.		Fort Morgan	Northeast
Fraser, M. E. V.	737 Republic Bldg.	Denver	Denver
Gardiner, Charles F.	1112 N. Cascade Ave.	Colorado Springs	El Paso
Gorsuch, John C.	334 Mack Bldg.	Denver	Denver
Greig, William	1267 Pearl St.	Denver	Northeast
Harris, Allen H.	969 Acoma St.	Denver	Denver
Hayes, A. I.	505 Republic Bldg.	Denver	Denver
Hickey, C. G.	823 Republic Bldg.	Denver	Denver
Hill, E. C.	1101 E. Alameda Ave.	Denver	Denver
Hunnicut, W. P.		Hawthorne, Calif.	Pueblo
Jaeger, Charles	632 Republic Bldg.	Denver	Denver
Kelsey, Otis H.	633 Majestic Bldg.	Denver	Denver
Kent, Wallace C.	1069 Cook St.	Denver	Denver
Kleiner, M.	1024 Republic Bldg.	Denver	Denver
Leavitt, Byron C.		Millbrook, Mass.	Denver
Libby, George F.	1319 Wilmot Place	Victoria, B. C.	Denver
Lockard, Lorenz B.	655 Gaylord St.	Denver	Denver
Love, Minnie C. T.	175 So. Lafayette St.	Denver	Denver
Macomber, G. N.	1415 Welton St.	Denver	Denver
McKay, J. H.	505 Republic Bldg.	Denver	Denver
McLauthlin, H. W.	532 Republic Bldg.	Denver	Denver
McLean, Luke	311 E. Evans Ave.	Pueblo	Pueblo
Madden, J. H.	1401 W. Colorado Ave.	Colorado Springs	El Paso
Martin, Wilbur F.	1303 N. Tejon St.	Colorado Springs	El Paso
Morning, James F.	416 Mack Bldg.	Denver	Denver
Ogilbee, H. N.		Manitou	El Paso
Pershing, Cyrus L.		Ridge	Denver
Pershing, Howell T.	1169 Race St.	Denver	Denver
Queal, E. B.	Physicians Bldg.	Boulder	Boulder
Scannell, J. E.		East Andover, N. H.	Las Animas
Shollenberger, Charles F.	2836 Federal Blvd.	Denver	Denver
Stiles, G. W.	444 P. O. Bldg.	Denver	Denver
Taylor, C. F.	802 W. Thirteenth St.	Pueblo	Pueblo
Tennant, C. E.	1254 School St.	Chehalis, Wash.	Denver
Wetherill, Horace G.	1085 W. Franklin St.	Monterey, Calif.	Denver
White, H. T.	4201 W. 49th Ave.	Denver	Denver
Wiest, Newton	1754 Albion St.	Denver	Denver
Wilcox, Henry W.	904 Republic Bldg.	Denver	Denver
Wilcox, Sara C.	904 Republic Bldg.	Denver	Denver
Williams, Aubrey H.	1024 Republic Bldg.	Denver	Denver

THIS DIRECTORY IS REMOVABLE

The foregoing directory of members, corrected to November 25, 1934, has been purposely placed in the exact center of the bound pages of this issue of Colorado Medicine. Readers wishing to separate it from the journal and keep it for handy desk reference can do so without tearing its pages or injuring the remainder of the issue. Bend back the wire stitches between Pages 454 and 455, and remove the twenty-page directory (pages 445 to 464 inclusive).

The Executive Secretary will appreciate immediate notification of any error found in this directory.

A few reprints of the directory will be prepared and can be obtained after January 2 from the Executive Office of the Society at cost.

WOMAN'S AUXILIARY

The Woman's Auxiliary to the Medical Society of Denver wishes to thank the Medical Society for the great help they gave in our HYGEIA campaign.

We appreciate the response of many physicians who have subscribed for HYGEIA for their reception rooms.

The Hygeia Committee.

Dr. Chevalier Jackson, Philadelphia, says: "Twenty odd years ago I discontinued one of the most popular comic magazines because of its propaganda against scientific medicine. Number after number came out ridiculing antitoxin for diphtheria, and appealing to anti-vaccination and anti-vivisection cranks. Put Hygeia on your waiting-room table."

Dr. Ira S. Wile, New York City, says: "In this era when the problems of social medicine are disturbing the profession, there is unusual value in a popularized medical journal which encourages the idea of preventive medicine, indicates the disadvantage of self-medication, and exposes various forms of medical exploitation of the public. Hygeia can and does serve as the impersonal conveyor of opinion."

On November 19, the annual benefit bridge party and fashion show was given by the Auxiliary to the Denver County Medical Society at the tea room of the Denver Dry Goods Company. The committee in charge of the affair consisted of Mrs. Cleveland Woodcock, chairman; Mesdames Arnold Minnig, W. E. Sunderland, D. A. Doty, George Moleen, Edward Delehanty, Ward Burdick, Gerald Frumess, George Cotton, Harry Corper, A. J. Chisholm, J. E. A. Connell, J. Burris Perrin, J. Leonard Swigert, Hermann Stein, and Louis Wollenweber.

Due to the able management of the committee and the enthusiastic cooperation of the auxiliary members, the party was an unprecedented success. Approximately 800 tickets were sold; and accordingly a rela-

tively large contribution was made to the Medical Student Educational Fund.

As an interesting innovation, members of the Auxiliary, instead of professional models, exhibited the newest styles in the fashion review. Members acting as models were Mesdames Robert Maul, George P. Lingenfelter, Douglas Macomber, Gerald Frumess, J. Burris Perrin, R. K. Dixon, D. A. Doty, W. E. Blanchard, Clyde Cooper, and Misses Virginia Lee King and Georgianna Burdick.

The Metropolitan Life Insurance Company, in its statistical bulletin of October, 1934, lists the geographical distribution of the death rate in the United States for the years 1929 to 1931. It is surprising to say that two western states, Arizona and New Mexico, had the highest death rates—twelve to thirteen per thousand population—and Colorado and Nevada came next with a death rate of eleven to twelve per thousand. The death rate in Colorado was almost 50 per cent more than the rate in the more favorable states. This offers splendid opportunity to hospitals and the medical profession for a new field of endeavor.

In commenting on the situation, the Metropolitan Life Insurance Company points out that this excessive death rate in these states includes the Mexican population, and the high percentage is attributed in some degree to this fact.

A Useful Booklet

A small booklet containing useful concise information and tables regarding foods—their vitamin, mineral and caloric content—has been made available through the manufacturer of Cocomalt. The food in powder form has been accepted by the Committee on Foods of the A. M. A. and is marketed in a strictly ethical manner.

This booklet is an authentic and useful reference. Address R. B. Davis Co., Hoboken, New Jersey.

Roentgenograms of the long bones of the skull should be made in all cases of chronic splenomegaly.—Medical Clinics of North America, September, 1934.

WYOMING SECTION

President, H. L. Harvey, Casper

Vice President, Chester E. Harris, Basin

Secretary, Earl Whedon, Sheridan

President-elect, J. L. Wicks, Evanston

Treasurer, Evald Olson, Meeteetse

Delegate to A. M. A., G. P. Johnston, Cheyenne; Alternates, F. L. Beck, Cheyenne; G. L. Strader, Cheyenne

Councillors: G. P. Johnston, Cheyenne; J. H. Goodnough, Rock Springs; F. C. Shafer, Douglas

Medical Defense Committee: R. H. Sanders, Rock Springs, Chairman

F. L. Beck, Cheyenne;

Earl Whedon, Sheridan

EDITOR

EARL WHEDON, M.D., Sheridan, Wyoming

EDITORIAL NOTES AND COMMENT

Time to Act

THE Committee on Medical Economics of the Wyoming State Medical Society has just sent a letter to all members of the Medical profession in our state. When you get your copy read it over and then re-read it. There is lots of food for thought in that letter. The word "chiseler" is not used in its two pages. It should have been used several times. The facts speak for themselves.

That the medical profession has a duty to perform is self-evident. It must clean its own house, or outsiders will do the work before we know it. The antique, unfair system of a County Physician, who receives pay for his services while the rest of the profession receive nothing for all they do for the indigent must be changed by adopting some plan similar to the so-called Iowa plan. That we are passing through changing times is a truth and above all else we must stand by the principles of the American Medical Association and insist on the free choice of physician by all patients—be they pay or paupers. The relation of physician and patient must rest on the principle of free choice. Any other plan is un-American. It is up to the medical profession in each county to present such a plan to the County Commissioners for their consideration.

The Iowa Plan is as follows: The doctors in each county agree to render medical care to the poor in that county for a certain amount for the year. This sum is paid by the County in equal monthly payments to the County Medical Society. Those entitled to medical services are allowed to call the

doctor of their choice. The members of the medical profession do the work and turn in their bills to the Secretary of the County Medical Society who refer these to a special committee of the society. The monthly allowance paid by the county is then prorated among the doctors according to the work done for that month. In this way the pay is divided according to the services performed and the patients are given free choice of physicians right at home. It is useless to try to demand from the United States government something we do not have at home, and on the other hand if we all work under such a plan it will work everywhere, state and national.

If your county does not have a County Medical Society, organize one at once and get going. It is the only fair way to handle these difficult questions. E. W.



Diseased Tonsils and Their Removal

LOOKING back over thirty years of experience in the removal of diseased tonsils brings out the following conclusions:

1. The relative safety of the operation when properly done after a careful coagulation test.
2. The high per cent of cures in cases of articular rheumatism. At least 75 per cent are cured and about 23 per cent improved. This leaves 2 per cent of failures.
3. That in quite a few cases of this type of rheumatism there often occurs a flare-up in a few days following the operation which, so far as we have been able to learn, has never been followed by any more attacks.

Therefore, we feel certain that a flare-up always means a perfect cure.

4. That too much attention cannot be given to be sure that the tonsils are completely removed. A check-up one or two months after every operation should be made to be sure all tonsil tissue has been removed.

5. That children bear a local anesthetic well and that most children can be operated from 6 years onward under a local anesthetic.

6. That there is almost no danger in Wyoming from infection in the neck or lung abscess following the operation of removal of tonsils. This is in contrast to reports from eastern and southern parts of the United States.

Lastly, the percentage of improved heart cases is even higher than that seen in articular rheumatism. Many young people with heart conditions so bad that all forms of play requiring severe exercise have been forbidden can regain the heart tone following the removal of diseased tonsils. It is truly wonderful how quickly recovery follows in these heart conditions. All septic general conditions are improved when septic tonsils are removed, not forgetting to search for other focal infections such as bad teeth, sinuses, gall bladder, appendicitis, ovarian and tubal as well as prostatic sites.

So-called bad results generally mean faulty removal and poor surgery.

E. W.



Sneezing

SOME time when you feel you are about to sneeze try to keep your eyes open. You just can't do it. We have never seen a person who has been able to execute this little act of self-control.

The causes of irritation which produce this reflex action are so varied, and yet the response is so quick that with most people the sneeze cannot be avoided. Often an outpouring from the ethmoid cells acts as the exciting cause. The secretion from the frontal sinus or from the antrum does not seem to cause so much reaction as those from the ethmoids. However, simple irrita-

tion of the mucous membranes over the turbinates can and does cause these same reactions.

The fact remains that you can't keep your eyes open when you are in the act of sneezing. Try it and see. E. W.



Some Extra Relief in Diaphragmatic Hernia

IN cases of diaphragmatic hernia of the stomach too little attention has been called to the importance of keeping the colon unloaded. When the transverse and descending colon are full the stomach is pushed up and difficulty in breathing results. Often times an accumulation of gas in the colon will so lift the stomach as to interfere seriously with the free working of the heart as well as the expansion of the lungs.

Plenty of rough food seems to afford more relief than the daily use of laxatives. Especially is this true when the descending colon is so packed that sleeping on the left side is impossible. Food which contains enough residue to cause active peristaltic waves seems to leave less gas in the colon; this often allows sufferers to sleep on their left sides—at least part of the night.

It is true that only a few cases of diaphragmatic hernia occur in the practice of the average member of the medical profession. A great deal of relief may be given patients if these few facts are made plain enough.

There are enough known facts if properly and extensively applied to solve the cancer problem.—*Journal of the American Medical Association*, October 20, 1934.

The easy labours cannot be foretold (in primiparae over 40) and caesarean section carries a lower death-rate, both for mother and fetus, than labour."—*Lancet*, September 29, 1934.

It is not at all uncommon for an elderly person to have an exploratory laparotomy for abdominal pain on the basis of constipation alone.—*New England Journal of Medicine*, October, 1934.

WYOMING STATE MEDICAL SOCIETY

1934 Membership

Name	Address	Society
Anderson, G. M.	Cheyenne	Laramie
Arobgast, H. J.	Rock Springs	Sweetwater
Baker, George E.	Casper	Natrona
Barber, Raymond	Rawlins	Carbon
Barrett, Lawrence	Casper	Natrona
Beach, G. O.	Casper	Natrona
Beard, C. Y.	Cheyenne	Laramie
Böck, F. L.	Cheyenne	Laramie
Bell, R. K.	Torrington	Uinta
Boesel, R. J.	Cheyenne	Laramie
Booth, L. G.	Acme	Sheridan
Boston, Alva A.	Kemmerer	State
Bunten, Joe C.	Cheyenne	Laramie
Bunten, W. Andrew	Cheyenne	Laramie
Carr, J. E.	Sheridan	Sheridan
Carter, C. Danna	Thermopolis	Hot Springs
Chambers, O. C.	Rock Springs	Sweetwater
Clark, G. J.	Gebo	Hot Springs
Clegg, E. G.	Monarch	Sheridan
Cogswell, J. G.	Riverton	Fremont
Conway, J. H.	Cheyenne	Laramie
Conyers, C. A.	Cheyenne	Laramie
Crandall, Myron L.	Rawlins	Carbon
Crane, R. E.	Sheridan	Sheridan
Croft, E. W.	Lovell	Northwestern
Dacken, V. R.	Cody	Northwestern
Dale, E. E.	Edgerton	Natrona
Day, W. R.	Cheyenne	Laramie
*Dean, T. A.	Casper	Natrona
DeKay, E. W.	Laramie	Albany
Denison, E. G.	Sheridan	Sheridan
Evans, Albert E.	Laramie	Albany
Finch, Harold	Laramie	Albany
Fosner, L. E.	Evanston	Uinta
Fox, G. A.	Cheyenne	Laramie
Fuhrer, J. E.	Reliance	Sweetwater
Goff, H. L.	Cheyenne	Laramie
Goodnough, J. H.	Rock Springs	Sweetwater
Gorder, J. W.	Greybull	Northwestern
Gray, W. O.	Worland	Northwestern
Guthrie, J. B.	Cheyenne	Laramie
*Hale, Robert W.	Thermopolis	Hot Springs
Hanna, T. J.	Chugwater	State
Harris, C. E.	Basin	Northwestern
Harris, H. T.	Basin	Northwestern
Harris, W. D.	Cheyenne	Laramie
Harvey, H. L.	Casper	Natrona
Hassed, W. H.	Cheyenne	Laramie
Hilton, J. R.	Douglas	State
Holland, J. H.	Evanston	Uinta
Holtz, Paul R.	Lander	Fremont
Horsley, W. W.	Lovell	Northwestern
Horton, F., Sr.	Newcastle	State
Horton, W. O.	Newcastle	State
*Howe, Louis	Cody	Northwestern
Hunt, C. E.	Laramie	Albany
Jacoby, W. K.	Evanston	Uinta
James, George R.	Casper	Natrona
Jeffrey, C. W.	Rawlins	Carbon
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Johnson, S. W.	Sheridan	Sheridan
Johnston, G. P.	Cheyenne	Laramie
Jump, C. E.	Evanston	Uinta
Kamp, J. C.	Casper	Natrona
Kanable, Russell H.	Basin	Northwestern
Keith, M. C.	Casper	Natrona
Kinney, O. B. C.	Cody	Northwestern
Kneble, W. J.	Buffalo	Sheridan
Krueger, K. E.	Winton	Sweetwater
Lacey, W. M.	Cheyenne	Laramie
Lane, F. M.	Cody	Northwestern
Lathrope, H. R.	Casper	Natrona

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Lenz, D. S.	Casper	Natrona
Lewellen, J. D.	Cody	Northwestern
Lucic, H. L.	Cheyenne	Laramie
Magrath, F. E.	Cheyenne	Laramie
Markley, J. P.	Laramie	Albany
Metz, Peter F.	Thermopolis	Hot Springs
Mills, F. A.	Powell	Northwestern
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Myre, S. L.	Greybull	Northwestern
Mylar, W. K.	Cheyenne	Laramie
McDermott, W. O.	Casper	Natrona
McDill, Wilson F.	Dines	Sweetwater
McHenry, J. C.	Gillette	Natrona
McLellan, A.	Casper	Natrona
McShane, K. L.	Burns	Laramie
Nelson, John R.	Casper	Natrona
Nelson, N. C.	Cheyenne	Laramie
Newman, J. R.	Kemmerer	State
Noyes, E. F.	Dixon	Carbon
Olson, Evald	Meeteetse	Northwestern
Pavy, O. S.	Laramie	Albany
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Pierce, J. R.	Thermopolis	Hot Springs
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Rae, H. B.	Wheatland	State
Read, Paul S.	Worland	Northwestern
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Roberts, W. H.	Sheridan	Sheridan
*Roder, Claude A.	Omaha	Nebraska
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Sanden, O. A.	Bairoil	Carbon
Sanders, R. H.	Rock Springs	Sweetwater
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Schunk, P. M.	Sheridan	Sheridan
Schunk, Wm.	Sheridan	Sheridan
Sederlin, E. L.	Laramie	Albany
Shaffer, F. C.	Douglas	State
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Smith, Clifford	Buffalo	Natrona
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Smith, W. Francis	Lander	Fremont
Steffen, W. A.	Sheridan	Sheridan
Stevenson, C. E.	Sheridan	Sheridan
Stewart, J. G.	Sheridan	Sheridan
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Stukenhoff, H.	Casper	Natrona
Tabor, Leonard	Glenrock	Natrona
Taggart, A. T.	Lodge Grass, Mont.	Sheridan
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Treloar, O. L.	Afton	State
Trueblood, R. C.	Cody	Northwestern
Veach, O. L.	Sheridan	Sheridan
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Whalen, J. F.	Green River	Sweetwater
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Wicks, J. L.	Evanston	Uinta
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Wilson, J. D.	Rawlins	Carbon
Woodward, Stillman	McFadden	Carbon

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Annual Meeting

THE tenth annual meeting of the Colorado Hospital Association was held at the Cosmopolitan Hotel, in Denver, October 25 and 26. It was one of the best meetings ever held by the Association. Credit for the success of the meeting belongs to the President, Mr. Guy M. Hanner, the program committee, and members of the Association who presented papers.

The Thursday morning session was presided over by the President, Mr. Guy M. Hanner, Superintendent of Beth-El Hospital in Colorado Springs. Papers of an administrative nature were presented as follows: "The Activities of the Denver Hospital Council," by Mr. Walter G. Christie, Superintendent of Presbyterian Hospital, Denver; "The Activities of the Colorado Springs Hospital Council," by Sister Mary, of Glockner Sanitarium, Colorado Springs; "What Routine Should be Followed in Case of Death," by Dr. B. B. Jaffa, Denver General Hospital, Denver; and "Should We Make Hotels of Our Hospitals?" by Dr. H. A. Black, Parkview Hospital, Pueblo.

Dr. John Andrew of Longmont Hospital Association, Longmont, presided at the afternoon session on Thursday, at which session the following subjects were presented and discussed: "Further Utilization of the Therapeutic Dietitian by the Medical Staff," by Miss Fern Stone, Denver General Hospital; "The Value of a Hospital Library for the Patients," by Mrs. Lillian B. Ellis, University of Colorado School of Medicine and Hospitals, Denver; and an Administrative Round Table conducted by Mr. Frank J. Walter, Superintendent, Saint Luke's Hospital, Denver. At this Round Table, "Intern Problems" were discussed by Dr. Maurice H. Rees, "Special Diet Allowances for Employees," by Mrs. Cora Kelly Kus-

ner, "The Handling of Accounts," by Walter G. Christie; "Proper Procedures in Admitting Patients," by William S. McNary, and "Public Relations," by Dr. Herbert A. Black.

On Thursday evening the Annual Banquet was held at the Cosmopolitan Hotel. Mr. John T. Haney of Colorado Springs proved himself an able and entertaining toastmaster. The President of the Association, Mr. Guy M. Hanner, gave an interesting and comprehensive address in which he set forth some of the outstanding problems confronting the hospitals of the present day. The speaker of the evening, Rabbi W. S. Friedman, of Denver, gave a highly instructive and inspirational address. Music was provided by Joe Mann's Orchestra during the evening and songs were sung by the Beth El Hospital Glee Club. The banquet was a very enjoyable one, and largely attended by association members and friends.

The Friday morning session was presided over by Mr. Walter G. Christie, Superintendent of Presbyterian Hospital. Papers were presented as follows: "The Correlation of the Record Department with the other Departments of the Hospital," by Miss Margaret Neale, Colorado General Hospital; and "Hospital Publicity and Community Relations," by the Rev. John R. Mulroy, Diocesan Director of Catholic Charities, Denver. Dr. John Andrew presented "The Legislative Program for 1935," which was discussed by Mr. George A. Collins.

The President, Mr. Guy M. Hanner, presided at the afternoon session on Friday, which was given over to the Nursing Section. Mr. Allen Erb, of the Mennonite Hospital and Sanatorium, La Junta, gave a talk on "Harmony and Cooperation in the Hospital." Miss A. Faith Ankeny, Corwin

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Hospital, Pueblo, discussed the Eight Hour Nursing Day; Mrs. Bessie K. Haskin, Denver General Hospital, gave a paper on the "Physical Requirements for the Obstetrical Service;" Miss Louise Kieninger, University of Colorado School of Medicine and Hospitals, Denver, presented a paper on the "Organization of Nursing Service in the General Hospital," and Miss Mary K. Smith, Beth-El Hospital, Colorado Springs, gave one on "Entrance Requirements for Student Nurses."

At the business session, which was a part of the Friday program, the President-Elect, Dr. John Andrew, outlined his program for the year 1935. The principal points in this program include membership drive, active support of the annual meeting of the Midwest Association to be held in Colorado Springs, and a special emphasis on the support of the contemplated Legislative Program for 1935. By vote of the Association, Dr. Andrew was authorized to make such expenditures to support the Legislative program as he and the board of Trustees might feel to be necessary. Mr. Witham discussed an intensive membership campaign and made suggestions for same.

At this meeting, the following officers were elected:

President-elect—Walter G. Christie, Superintendent Presbyterian Hospital, Denver.

First Vice President—Robert B. Witham, Director Children's Hospital, Denver.

Second Vice President—Sister Mary Linus, St. Joseph's Hospital, Denver.

Treasurer—Dr. Herbert A. Black, Parkview Hospital, Pueblo.

Trustee, 1935-1939—Guy M. Hanner, Superintendent, Beth-El General Hospital, Colorado Springs.

Mr. William S. McNary was elected to serve another term as Executive Secretary, and Mr. Frank J. Walter was reappointed to serve as editor of the official journal.



Dr. N. W. Faxon, in his presidential address at the annual meeting of the American Hospital Association in Philadelphia, outlined the work which the Council of Community Relations and Administrative Practice is undertaking. Since so few hospitals are acquainted with the activities of this important committee, it was thought to be of interest to list its functions and inves-

tigations as outlined by Dr. Faxon, which are as follows:

The Council now has under consideration a number of most important subjects and has set up sub-committees designated as Divisions of Medical Practice, Nursing, Accounting and Hospital Councils to consider subjects naturally falling within the province suggested by these divisions.

The Division of Medical Practice is now engaged in the following activities.

1. The development of a Code of Ethics or what constitutes sound administrative procedure, as recommended by Dr. Burlingham in 1929.

2. A study of what constitutes a safe and satisfactory maternity service from the standpoint of physical requirements and departmental and administrative organization. This is really a study on minimum requirements undertaken in conjunction with the American College of Surgeons.

3. Joint studies with the American Medical Association regarding the hospital privileges of physicians and also the collection of facts concerning tax-supported general hospitals.

4. Studies concerning radiologists, laboratory technicians and their proper relationship to hospitals.

5. A study of the medical and hospital problems of specialists.

The Division of Nursing is engaged in a co-operative effort with the American Nursing Association to produce definite policies regarding the employment of nurses and the administration of nursing schools.

The Division of Accounting is making another effort to develop and establish an accounting system for hospitals.

The Division of Hospital Councils is making an evaluation of the various kinds of hospital councils established and operating.

This will give you some idea of the type and extent of the Council's activities. No seed that the Association has sown gives more promise of bringing in a fruitful harvest. The Council is looking ahead. Moreover, we have been successful in developing interest and cooperation with other medical associations with whom we should have had closer association long ago.

If you have any problems or desire any special information along these lines, it is recommended that you get in touch with the Chairman of this committee or the Sub-chairman in charge of the field in which your inquiry falls. Following are the committee members:

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Committee on Public Education—Dr. John P. Hilton, Chairman, Mount Airy Sanitarium, Denver; Rev. John R. Mulroy, Catholic Charities, Denver; Rev. H. M. Walters, Boulder Community, Boulder.

Special Committee on Allied Professions—Dr. Herbert A. Black, Chairman, Parkview, Pueblo; Sister Mary Linus, St. Joseph's, Denver; Guy M. Hanner, Beth-El General, Colorado Springs.

Special Committee to Cooperate With the Joint Committee—Guy M. Hanner, Beth-El General, Colorado Springs; Robert B. Witham, Children's, Denver; Walter G. Christie, Presbyterian, Denver.

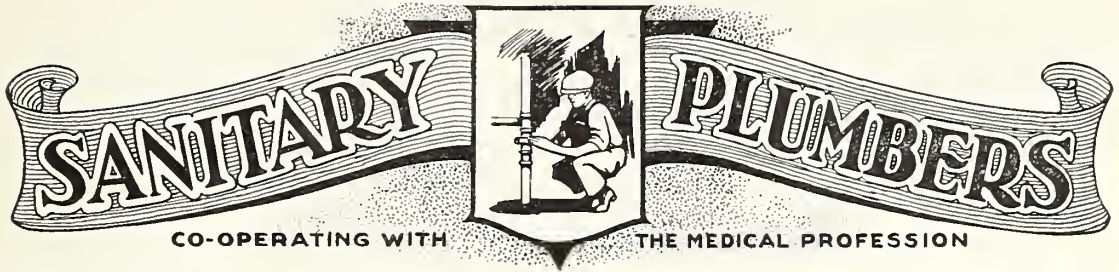
BASIC METHODS OF COMPUTING MEAL COSTS

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The problem of planning correct diets in the treatment of certain diseases and of feeding a well balanced diet to a large number of patients and employees is of primary importance in the dietetics department. However, such aims must be accomplished at a reasonable cost. The dietitian should have a part in preparing the cost records of her department. Cost is and must be one standard by which she judges her efforts. While an accountant may prepare the financial report of the dietary department, the dietitian must be able to interpret this report in terms of service rendered. It should be her responsibility to account for all fluctuating cost records. She must know that sudden fluctuations in food costs, unless satisfactorily explained by market prices, are usually indicative of poor meal planning, lack of supervision, and control in production and waste. While the competent dietitian realizes that food costs should be carefully observed, she also is aware that food cost reductions must not be made at the sacrifice of quality, variety, and service.

There are certain fundamental rules to be observed in preparing cost records. Expenses must be so accumulated as to yield a figure which represents only the costs for the time interval for which the report is being prepared. Secondly, the total of expenses must be weighed on the basis of units of service rendered during the period. The usual time interval for which reports are prepared is one month. To figure labor cost for that time is simple, since most payrolls are maintained on a monthly basis. Raw food and supplies should be charged only in the amount used during the interval. Seasonal commodities are often purchased in quantities. However, the monthly accumulation for cost work should not include the amount purchased during the period, but rather the amount actually consumed. In large organizations the storeroom acts as a

*Miss Beck is the Dietitian, Modern Woodman Sanatorium.



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To say, "Our food cost is so and so," means very little if used for comparative basis with that of another institution. It is impossible for one institution satisfactorily to compare its food cost with that of another. Two hospitals may have the same raw food cost per meal and yet the food may vary greatly in quality and variety. There are many factors which make comparison difficult. For instance, how many patients and employees were served during the period? Were guest meals, meals to physicians and others included? What method was employed in counting meals? What type of menus are served? What was the percentage of special diets and between meal nourishments served? Every dietitian realizes that a large number of special diets will increase her cost records.

A comparison of total food costs from month to month should be of value to every institution. However, variations in the monthly total must be measured against some index showing the variations in service rendered. An increase in expense alone may mean either a reduction in efficiency or an increase in meals served. We must, therefore, reduce our monthly total to a unit cost which will measure total cost on the basis of service. Whether or not the dietitian is responsible for producing total monthly expenses, she must account for the units of service, namely meals served by her department during the period for which the record has been taken. The unit of service for the dietetic department is not a meal day, but rather an individual meal.

The dietitian's method of counting meals may be either by counting the exact number of meals served, or by multiplying the daily census of patients and personnel by three.

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Both methods have aroused a great deal of discussion. Some contend that the latter method is too inaccurate and that the daily census is liable to be considerably higher than when an actual count of meals is taken. This question was studied some time ago by a committee from the American Dietetic Association which found that in regard to methods of counting meals there was almost equal division among the hospitals which were investigated. For my own personal interest to find out what was done in the way of computing meal costs, I sent out a questionnaire to the dietitians in the leading hospitals of Colorado. Among the questions asked was, "How do you count meal costs?" The answers I received were almost evenly divided as to actual count and by multiplying the "family" by three. Four of our hospitals take an actual count of meals served to employees but multiply the daily census of patients by three.

In the July issue of "Hospital Management," the American Hospital Association has recommended the following as a standard formula to be included in the daily dietary report.

Patients' meals—to include all meals served to patients, i. e., regular, soft, fluid and special diets. Supplementary nourishments are not to be counted.

Each newborn receiving formula feeding shall be counted as one patient meal per day.

If infant is admitted not accompanied by mother (as a patient) the feeding shall be counted as three meals per day.

Total patient meals.

Personnel meals—to include meals of all personnel and special nurses, the count to be the actual number of meals served.

Guest trays—to include meals served to guests of hospital patients, board of trustees, committees, guilds and other guests.

Total meals served.

To get an accurate picture of the dietary department it is necessary to consider more than the unit meal cost of raw food. Every item involved which adds to the cost of running the dietary department must be taken into consideration. The factors which are



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most generally included in computing meal costs are as follows: Raw food, labor, dishes, supplies (other than food), laundry, office supplies, equipment new and equipment repaired. This division separates the expenses into those which are more or less fixed and those which may vary with the demand for service. Thus, for normal variations in demand the total labor cost is very nearly a constant. We expect that during relatively slack periods that labor costs per meal will be high, the converse being true during periods of heavy demand.

Assuming no fluctuations in commodity markets, it may be said that the unit raw food cost should remain constant. Totals of food purchased for a period may vary, but total food cost per meals should be substantially the same. Increase in unit raw food costs require an explanation. A variation may mean either a change in food prices, a change in general quality of food served, inefficient menu planning, or a misuse of the raw food issued.

All unit costs increase in value as figures are available for comparison over long periods of time.

While the method of preparing cost records and of counting meals may vary slightly in different institutions, the method of computing unit meal costs remains the same. The total monthly expense of food is divided by the total number of meals served to obtain the unit raw food cost per meal for that month. Unit costs for the entire department represent the minimum in cost figure which should be available for the dietitian.

It is generally understood that financial reports do not answer the problem of management of the dietetics department, but they give the dietitian a definite standard by which she may judge her efforts. She may find that greater attention to menu planning, portions served, and distribution of personnel are necessary. Every dietitian must realize that accurate and true figures are essential if the institution which she is serving is to judge correctly the financial success of her activities.

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Gynecology—The Word*

Gynecology: gi'-ne-kol-o-je, gin'-e-kol-o-je, jin'-e-kol-o-je, gy-ne-kol-o-je or ji'-ne-kol-o-ji (Stedman 1922) or what have you?

Professor William Goodell, the first regular Professor of Gynecology in America (at the University of Pennsylvania in 1876) taught his students to pronounce the word "jin'-e-kol-o-je," giving the first syllable the sound of g as in ginger.

Every encyclopedia and dictionary known to the writer prefers and gives first place to this pronunciation and all standard medical dictionaries excepting Stedman's so pronounce it and every other allied word derived from the same Greek root.

Dorland's Medical Dictionary (1932) has twenty-seven such words all pronounced with the soft g and it makes no mention of any other pronunciation.

So far as the writer can ascertain there is no authority whatever for gi'-ne-kol-o-je or gin'-e-kol-o-je (gin as in begin) excepting as a second choice corruption of the original word, and yet one finds these to be more commonly used in the Middle West and on the Pacific Coast.

From long use and familiarity, backed by the authority of the best lexicographers and because he always taught his students the preferred dictionary pronunciation of the word the writer finds the almost universal use of these corruptions of the word among the teachers and practitioners of this branch of medicine—in the West a somewhat inexplicably common error.

Would it not be to the mutual advantage of all, particularly to the teachers and practitioners of this specialty, if by some means the pronunciation of the word could be standardized, even if there should be some excuse—through usage—for the unorthodox forms?

Such action, based upon the prevailing opinions and practice of the lexicographers and approved by our gynecological societies, or confirmed by a duly authorized committee of such societies, might establish a stand-

*Reprinted from The Western Journal of Surgery, Obstetrics and Gynecology, March, 1934.

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ard pronunciation for this much abused and garbled word that would be worth while.

To teachers of gynecology in particular a uniform and proper pronunciation of the title of the subject they teach should give evidence of some foundation in those basic principles of scholarship that are naturally expected of all good teachers.

Why should not the teaching and practice of gynecology begin with a proper and uniform pronunciation and use of the word as the lexicographers prefer to have it pronounced? Why pass on to the next generation of gynecologists the mistakes of this one?

Jin'-e-kol-o-je is easy to say, it suggests a classical background, it is euphonious and dignified and it has the unquestionable advantage of being correct and fully approved by the standard dictionaries and encyclopedias.

Let's make it unanimous and all say Jin'-e-kol-o-je just as the first Professor of the specialty taught it more than fifty years ago.—Horace G. Wetherill.

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* * *

No, No, Maudie

L.L.D after a man's name does not mean that he is a lung and liver doctor.—The Merry World.

* * *

When you think of the bond issues the next generation must pay off, it's no wonder an infant yells when it's born.—Kansas Farmer.

* * *

"How's your wife coming along with her driving?"

"She took a turn for the worse last week."—R. and H. Safety News.

* * *

"Goodness! Have you had another tooth pulled?"

"Yes. I have a regular drawing account at the dentist's."

* * *

If you comb your hair over your bald spot, you shouldn't mind if the grocer puts the larger potatoes on top.—Altoona (Kan.) Tribune.

* * *

She: "I took great pains with the cucumber salad I made you last night."

He: "And so did I."

* * *

A scientist thinks he is on the verge of perfecting a drug which will cure insanity. If he is successful, what will we do for wars?—Detroit News.

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"Hysterical, you mean."

"No, historical. She digs up all my past."

* * *

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(3) Thou shalt not take the name of any alphabetical administration in vain, for thy Lords will not hold him guiltless of treason that taketh their name in vain.

(4) Remember the idle hours to keep them holy. Forty hours—or peradventure thirty—shalt thou labor and do all thy work, but the other hundred and twenty-eight hours of the week are the hours of thy Lords and Masters. In them thou shalt not do any work, thou, nor thy son, nor thy daughter, thy manservant, nor thy maid-servant, nor thy cattle, nor thy stranger that is within thy gates: for in six months thy Lords and Masters made a new heaven and a new earth, a planned economy, and a new social order, and all that in them is, and are not rested yet; wherefore thy Lords and Masters blessed the idle hours and hallowed them.

(5) Honor thy Brain Trust and thy Postmaster General, that thy days may be long in any job that the New Deal giveth thee.

(6) Thou shalt not kill—anything but respect for anything that has been tried and found true.

(7) Thou shalt not adulterate anything but money.

(8) Thou shalt not steal—except by borrowing and refusing to repay more than fifty-nine cents on the dollar.

(9) Thou shalt not bear witness against them that make false promises or repudiate their pledges: for they are the salt of the earth whom we delight to honor. We also have made false promises and repudiated our pledges, and the creature shall not be better than his creator.

(10) Thou shalt not covet thy neighbor's house, thou shalt not covet thy neighbor's wife, nor his manservant, nor his maidservant, nor his ox, nor his ass, nor anything that is thy neighbor's—nor, for that matter, anything that is thine own, for we intend to confiscate it anyhow, when, as, and if it cometh expedient.

